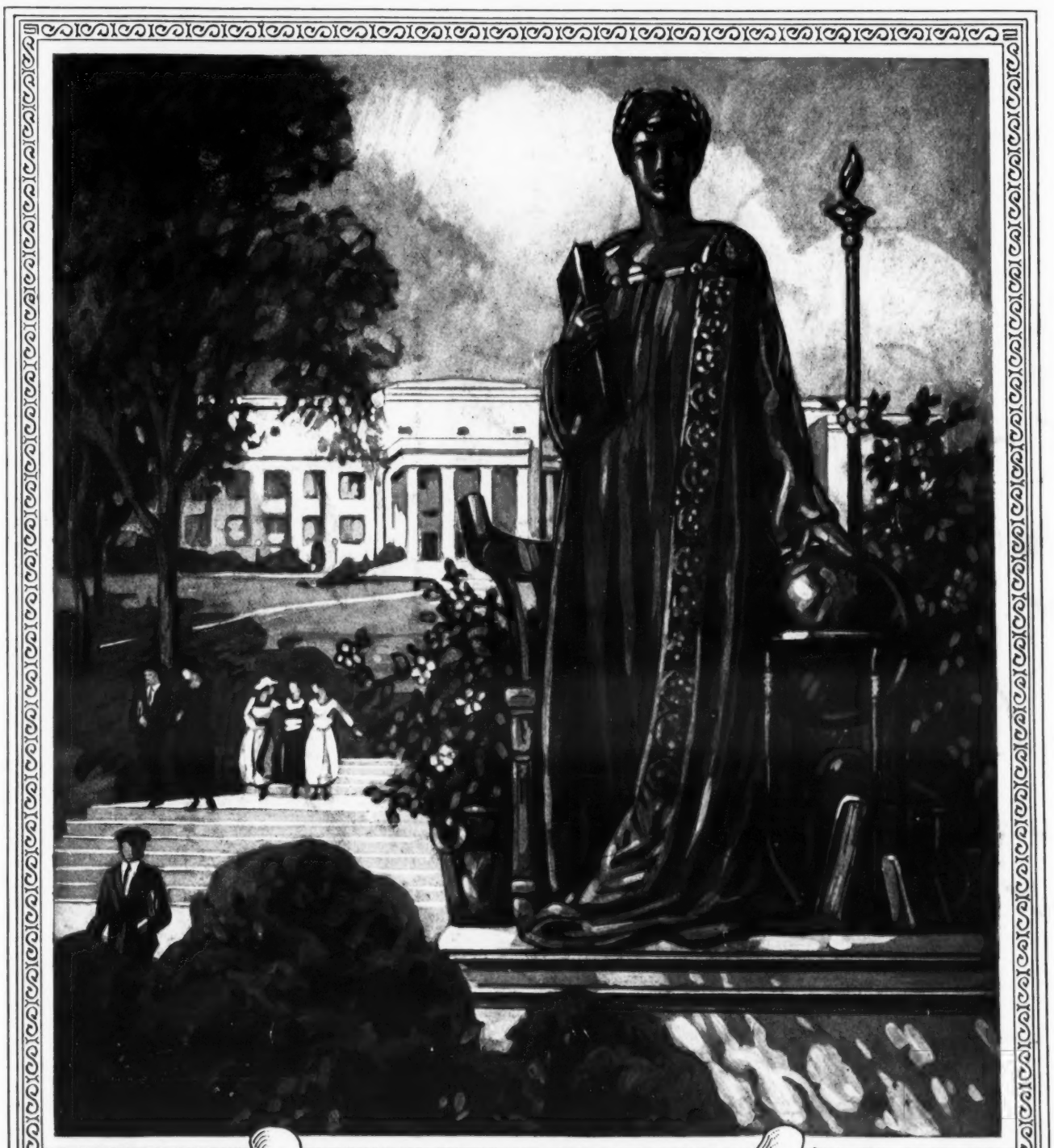
AUG

THE AMERICAN
School Board Journal

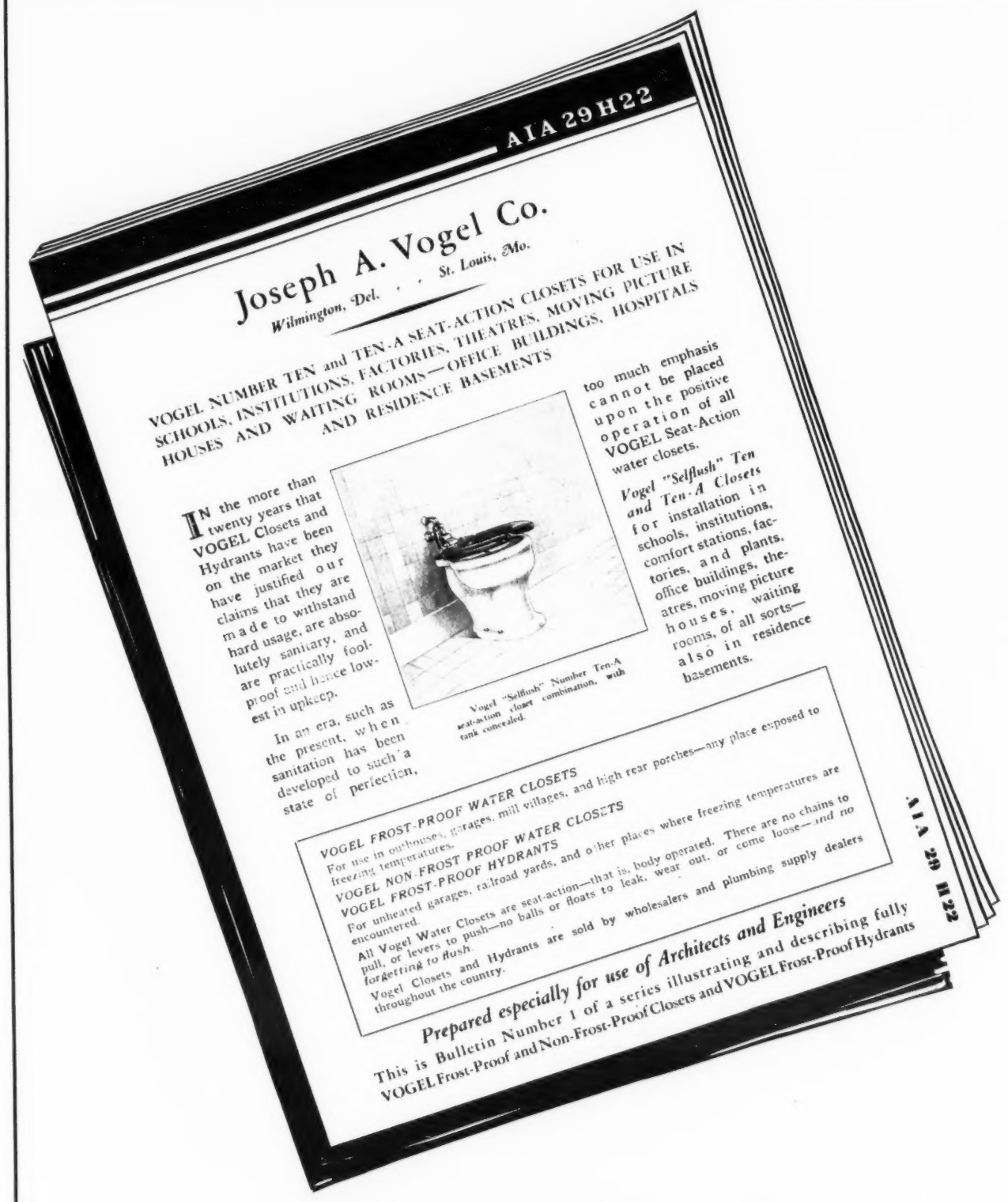
A PERIODICAL OF SCHOOL ADMINISTRATION



AUGUST 1930

In This Issue: The Superintendent and the Business Manager—*E. E. Oberholtzer*

THE BRUCE PUBLISHING COMPANY
NEW YORK MILWAUKEE CHICAGO


AIA 29 H22
Joseph A. Vogel Co.
Wilmington, Del. · · St. Louis, Mo.
VOGEL NUMBER TEN and TEN-A SEAT-ACTION CLOSETS FOR USE IN SCHOOLS, INSTITUTIONS, FACTORIES, THEATRES, MOVING PICTURE HOUSES AND WAITING ROOMS—OFFICE BUILDINGS, HOSPITALS AND RESIDENCE BASEMENTS
IN the more than twenty years that VOGEL Closets and Hydrants have been on the market they have justified our claims that they are made to withstand hard usage, are absolutely sanitary, and are practically foolproof and hence lowest in upkeep.
In an era, such as the present, when sanitation has been developed to such a state of perfection, too much emphasis cannot be placed upon the positive operation of all VOGEL Seat-Action water closets.
Vogel "Selflush" Number Ten-A seat-action closet combination, with tank concealed.
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For use in outhouses, garages, mill villages, and high rear porches—any place exposed to freezing temperatures.
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For unheated garages, railroad yards, and other places where freezing temperatures are encountered.
All Vogel Water Closets are seat-action—that is, body operated. There are no chains to pull, or levers to push—no balls or floats to leak, wear out, or come loose—and no forgetting to flush.
Vogel Closets and Hydrants are sold by wholesalers and plumbing supply dealers throughout the country.
Prepared especially for use of Architects and Engineers
This is Bulletin Number 1 of a series illustrating and describing fully VOGEL Frost-Proof and Non-Frost-Proof Closets and VOGEL Frost-Proof Hydrants
AIA 29 H22

Closets should not be purchased for school use until you have a copy of the eight-page booklet on school closets and their operation

DETAILED illustration of various types of closets, together with roughing-in measurements and specifications, are incorporated in this booklet.

It will be sent to school boards, engineers, and architects promptly upon request.

JOSEPH A. VOGEL COMPANY

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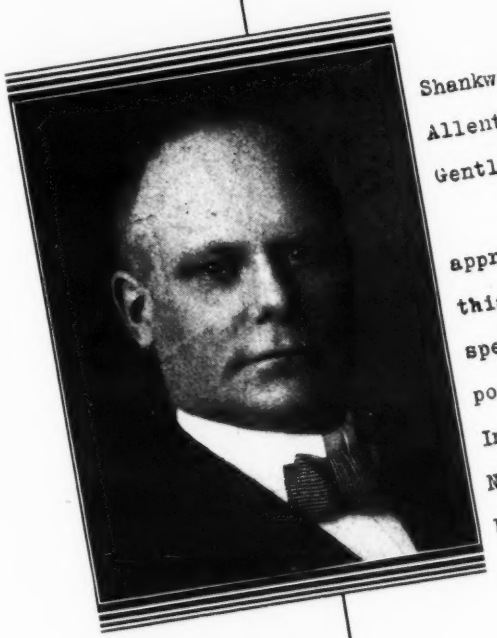
VOGEL *Products*

"And after 40 years they (Natural Slate Blackboards) are as good as when put in place."



George Wesley Bullard,
Reg. Archt.
Tacoma, Washington

George Wesley Bullard
REGISTERED ARCHITECT
622 Provident Building
TELEPHONE MAIN 7660

Member Washington State Chapter
A. I. A.

Tacoma, Washington

May 29, 1930

Shankweiler-Mickley, Inc.,
Allentown, Pennsylvania,

Gentlemen:

During the past forty years I have designed approximately fifty school and college buildings in this and other States. In many of these buildings I specified Natural Slate blackboards and only used composition blackboards where economy made it necessary. In no case have I heard a complaint pertaining to the Natural Slate boards. I specified the first slate black boards in Tacoma and after forty years they are as good as when put in place.

I also specified the first slate roof in this city and after thirty-six years of service appears as good as when first put on.

I consider it economy in the long run to use Natural Slate and advise its use wherever possible.

Very truly yours.

G. W. Bullard.

Geo. Wesley Bullard.

Surely the designer of over fifty school and college buildings knows from experience what he is talking about. . . . And his very words are "after forty years Natural Slate Blackboards are as good as when put in place."

Whether it is 40 years, 80 years, or 100 years, this report "good as when put in place" will still be the same.

Mr. Bullard, as well as any other architect experiencing the qualities of Natural Slate Blackboards, knows, without a doubt, that they are fireproof . . . are not affected by chemicals . . . never warp or buckle . . . never peel or crack . . . are easy to write on and to read from . . . non-glaring . . . and . . . will outlast the building.

Write for two booklets describing Natural Slate Blackboards containing specifications, data, and an interesting story on the quarrying and finishing. They are yours for the asking.

NATURAL SLATE BLACKBOARD COMPANY, 840 Robinson Ave., Pen Argyl, Pa.

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NATURAL SLATE BLACKBOARDS

Natural Slate Blackboards Outlast the Building

"IT PAYS TO KEEP CLEAN--"

— — AMERICAN LINEN COMPANY

STEINER BUILDING, MINNEAPOLIS
Owned by the American Linen Company

Below is reproduced a letter from the

AMERICAN LINEN COMPANY
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Midland Chemical Laboratories, Inc.,
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Gentlemen:

During the past six years we have tried out and experimented with various floor compounds, but it was not until we tried out TILEOLEUM that we were fully satisfied.

Our floors at the present time look better than ever before and it is simply through the use of your products and following the instructions of your salesman.

We have received many compliments on the appearance of our floors and in the opinion of the writer they are far superior in looks to any other terrazzo floors in the Twin Cities that are cleaned with other compounds or liquids.

Sincerely,
MINNEAPOLIS REALTY HOLDING CO.

J. B. Ludwarth

And so the American Linen Company keeps its building clean with — —

MIDLAND
TILEOLEUM
THE PERFECT CLEANSER

FOR

TILE - MARBLE - TERRAZZO

School buildings the country over are being renovated and cleaned up preparatory to the coming school year. There is no time to be lost if your school is to get the cleaning it deserves. Write in immediately and we will send an experienced Building Maintenance Engineer to inspect your buildings and recommend treatment. All types of floors, furniture and equipment will receive attention. The best methods, the best materials and the most economical cleaning program will be advised. This will be done without cost or obligation on your part.

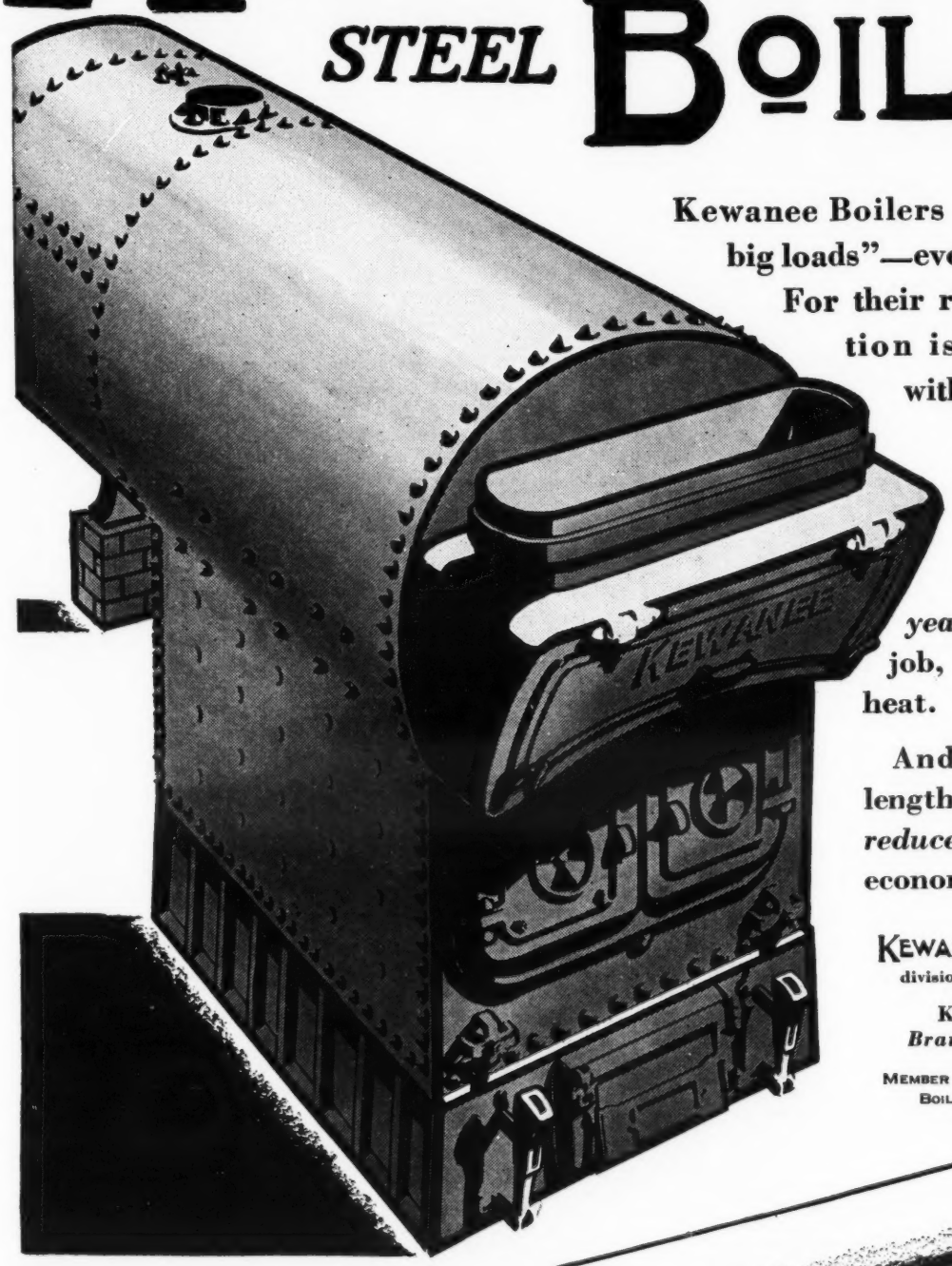
SEND FOR THE COMPLETE DATA AND DETAILED INFORMATION ON THE MIDLAND SYSTEM OF SCHOOL HOUSEKEEPING.

Mr. M. S. Olsen, a nationally known and recognized authority on this subject, has supervised the work of this system. It is thoroughly modern and is a necessary guide for the proper upkeep of present-day buildings.

Complete Text-Book Course
Given Free to Those in Charge of This Work in Schools . . . Write Today

MIDLAND CHEMICAL LABORATORIES, Inc.
DUBUQUE, IOWA, U. S. A.

KEWANEE STEEL BOILERS



Kewanee Boilers are built to "Carry big loads"—even heavy "overloads." For their riveted steel construction is strong enough to withstand the worst punishment a heating boiler can get.

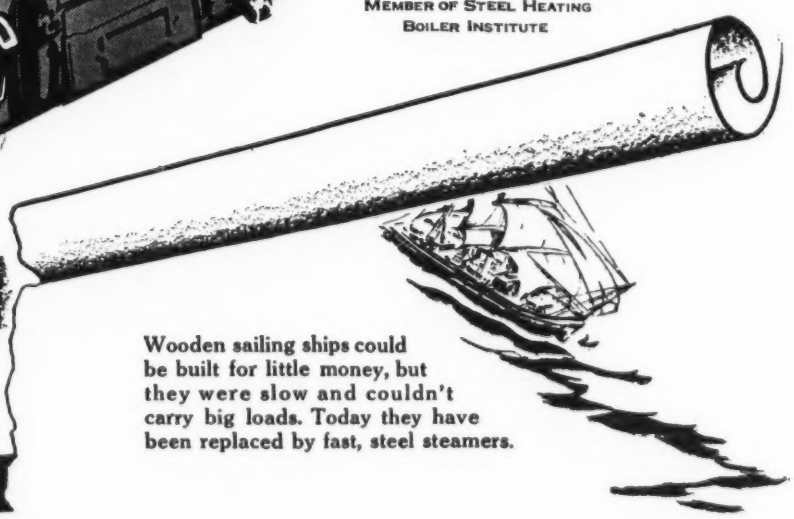
Countless Kewanee Boilers—*installed 40 years ago*—are still on the job, providing dependable heat.

And as a boiler's life is lengthened, its *actual cost is reduced*—making it a truly economical purchase.

KEWANEE BOILER CORPORATION
division of American Radiator & Standard Sanitary Corporation
KEWANEE, ILLINOIS
Branches in Principal Cities

MEMBER OF STEEL HEATING BOILER INSTITUTE

It costs less to OWN a KEWANEE



Wooden sailing ships could be built for little money, but they were slow and couldn't carry big loads. Today they have been replaced by fast, steel steamers.

Von Duprin

Self-Releasing Fire and Panic Exit Latches

Painting the Lily - - Successfully

To improve upon the superfine has always been the dream of real craftsmen.

But opportunities come very rarely.

One came to us, however, when the new series genuine Type "B" Von Duprin devices were designed. By a happy inspiration—if we may use that phrase—we were able to radically cut down the number of parts and make the actuating members of the new design strong and long wearing beyond all precedent. The superlatively good was made even better.

To secure these better devices, we suggest that you request your architect to specify them separately from the finishing hardware and, of course, by name. Thus you foster clean competition, since all reputable dealers can buy these devices at the same fair prices.

VONNEGUT HARDWARE CO.
Indianapolis, Ind.

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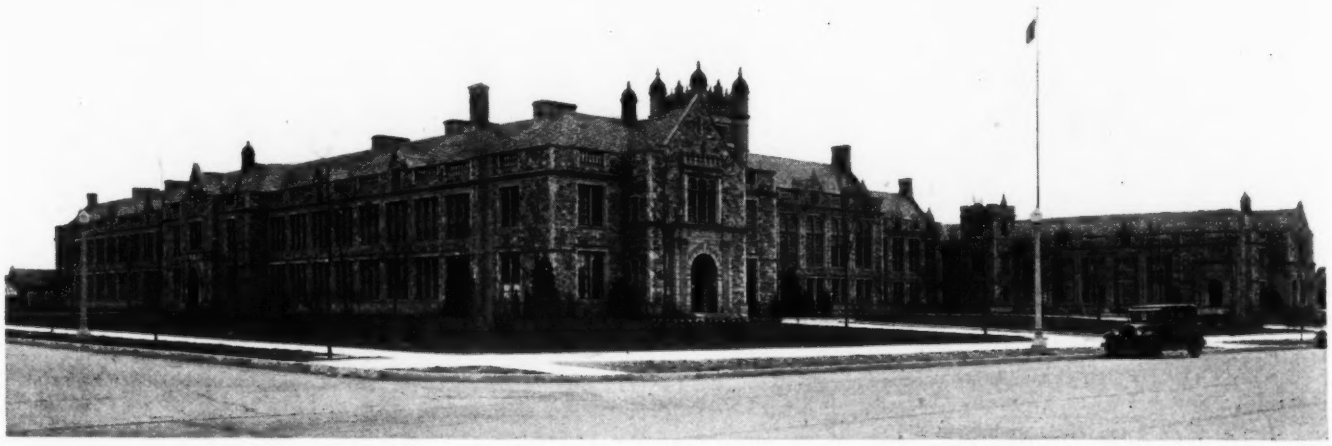

FORDSON HIGH SCHOOL,
Fordson, Michigan.
VAN LEYEN, SCHILLING & KEOUGH,
Architects and Engineers.

Necessary for Correct Health in School Buildings, and Invaluable as a Huge Fuel Economy Agency

The completeness of The Johnson System Of Temperature And Humidity Control service, and the efficiency of Johnson operation, have established its installation as regular standard in school buildings everywhere.

All sources of heat and ventilating units in Fordson High School are Johnson Controlled. The direct radiators in each room are controlled by Johnson Dual Thermostats, automatically maintaining normal temperature for the occupied periods and a lower temperature for unoccupied periods: saving fuel to the extent of 25 to 40 per cent. The basement of this school building contains a large swimming pool, with forced fan for ventilation; the classrooms, auditorium, gymnasium and business offices are ventilated by means of fans in the basement: each section equipped with Johnson regulation. And the air washers in the building, furnishing humidity to each room, are controlled by Johnson Humidostats.

Write now for the Johnson book of interesting details: The Johnson System applied to every form, plan and system of heating and ventilating: sent gratis on request.

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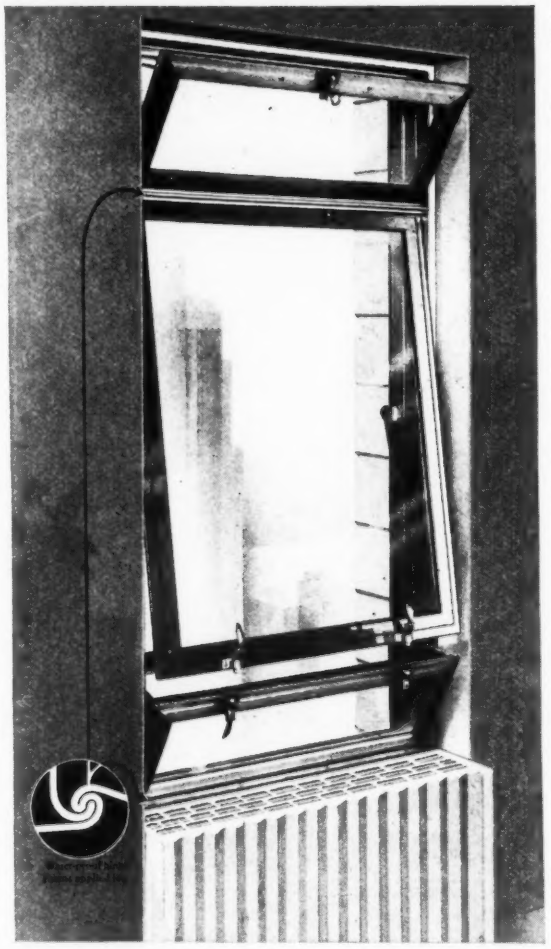
Established 1885
MILWAUKEE, WISCONSIN

Branches In All Principal Cities

JOHNSON HEAT AND HUMIDITY CONTROL

WINDOWS



SEALAIR IN-SWINGING

This window is weather-proof when closed and draft-proof when opened. Both sides of all sashes can be washed from the interior. It will not rattle, and can be operated with ease. The stationary bar between lower and middle sash makes it a safety window. Made in Bronze, Aluminum Alloy or Steel.

Send for complete description, specifications and F.S. details.

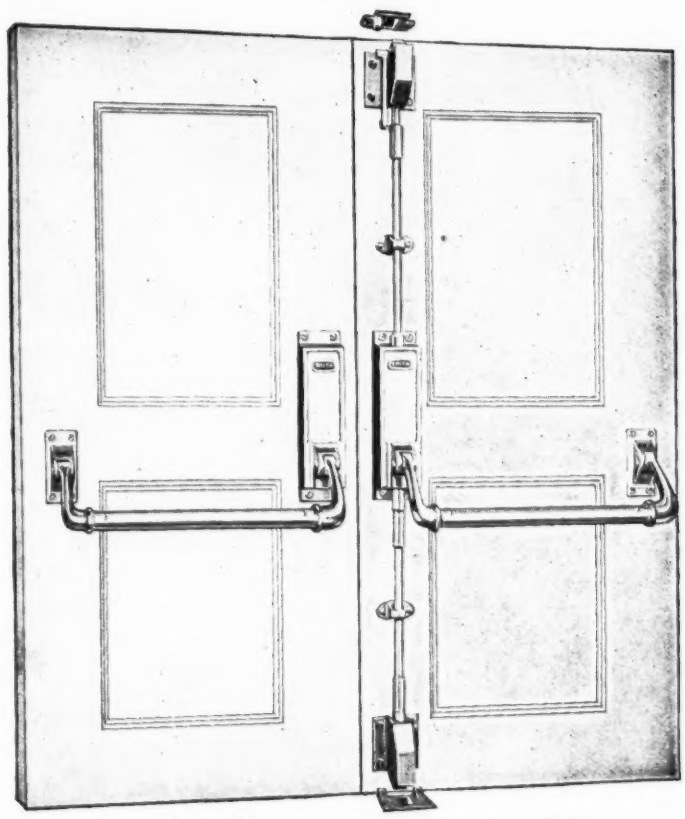
THE Kawneer COMPANY

Niles, Michigan Subsidiary: Berkeley, Calif.

SMITH'S IMPROVED PANIC EXIT LOCKS

NO. 80 LINE

Gravity Panic Exit Bolts



Inside View Has Outside Trim. *Inside View No Outside Trim.*

Bolts are operated by a slight pressure on the Cross Bar.

Bolts are not dependent on springs for opening or closing operation.

Simple but sturdy in construction and easily installed.

Will operate perfectly in connection with standard makes of door closers.

Catalogue No. 30 with Supplement "A" sent on request.

Manufactured by

THE STEFFENS-AMBERG CO.

260-270 Morris Ave.

NEWARK, N. J.

11¢ Per Square Foot of Radiation with Oil

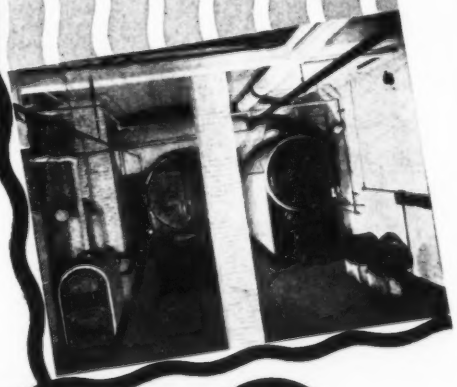
Another Heggie-Simplex record for fuel economy was established in the past season in heating the new Tower Building, Washington, D. C. Although two Heggie-Simplex Steel Boilers were installed (of a combined rating equal to that ordinarily specified for a building of this type) only one boiler was needed to efficiently heat the building with its 22,000 square feet of radiation. *It did this, with oil, at the very low cost of 11c per square foot of radiation per season!*

Heggie-Simplex Steel Boilers pay for themselves quickly in fuel saving alone, because their construction assures complete combustion and complete utilization of heat units.

The extra large fire box gives fuel—oil, gas, coal, or coke—more room to burn. More of the heating surface is in direct contact with the fire; thus heat units are absorbed faster. Unrestricted circulation of the water carries the heat to the outlet without waste. "Rear-front-rear" flues strip the gases of all usable heat units before they reach the chimney.

Built of steel, electrically welded into one seamless unit, Heggie-Simplex Boilers are *crack proof* and leak proof. No shutdowns! No costly repairs! Because of this sturdier construction, insurance and maintenance charges as well as *fuel* costs are exceptionally low.

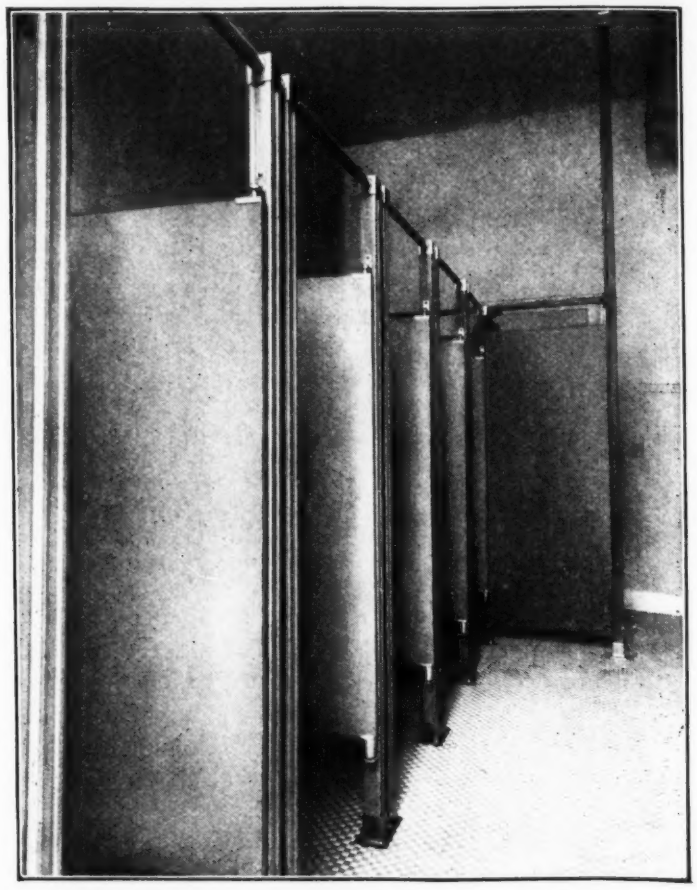
Tower Building, Washington, D. C.
Architect—Robert F. Beresford
Heating Engineer—Robert Mayo, Jr.
Heating Contractor—Isadore Freund
Illustration below—Heggie Simplex Boilers and Refuse Burning Water Heater installed in this building.



For complete facts, write Heggie-Simplex Boiler Co., Joliet, Ill. Representatives in principal cities—'phone listed under "Heggie-Simplex Boilers."

MEMBER OF THE STEEL HEATING BOILER INSTITUTE

HEGGIE-SIMPLEX
STEEL HEATING BOILERS



Lincoln School, Nutley, N. J.

Serving America's Schools Since 1915

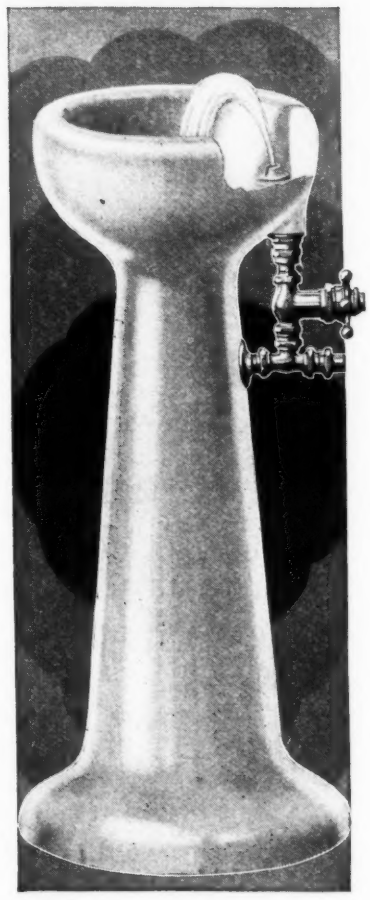
OVER a period of 15 years have Sanymetal Steel Toilet and Shower Compartments proved their "metal" in hundreds of the country's finest schools.

Steel is the ideal partition material, because of its staying power in the face of abuse, and its economy. Steel partitions, as Sanymetal builds them, are of particularly sanitary construction, totally devoid of traps and caches for dirt and vermin. They are finished in attractive vitreous enamels which offer little encouragement to amateur artists among the pupils. The modern design of Sanymetal Unit Panels enhances the appearance of any toilet room and induces cleanliness on the part of the children.

Rugged, clean-cut, sanitary Sanymetal steel enameled units are built for toilets, showers, dressing-rooms, urinals—either molded panel or flush insulated type. Sanymetal steel-and-glass dividing partitions are also furnished for offices, manual training quarters, and corridor fire screens. Ask for detailed catalog.

The Sanymetal Products Co.
1703 Urbana Road Cleveland, Ohio

Sanymetal TRADE MARK U.S. REG. *Toilet and Office* **PARTITIONS**



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R-S Drinking Fountains are in keeping with the lines of present day architecture - - - - pleasing, clean in design - - - they add much to public buildings, hotels, schools and other institutions.

There are many types and styles of R-S Fountains - - - - but all have the R-S Vertico Slant feature. Let us give you full particulars. Write for catalog.

RUNDLE-SPENCE MFG. CO.
51 Fourth Street
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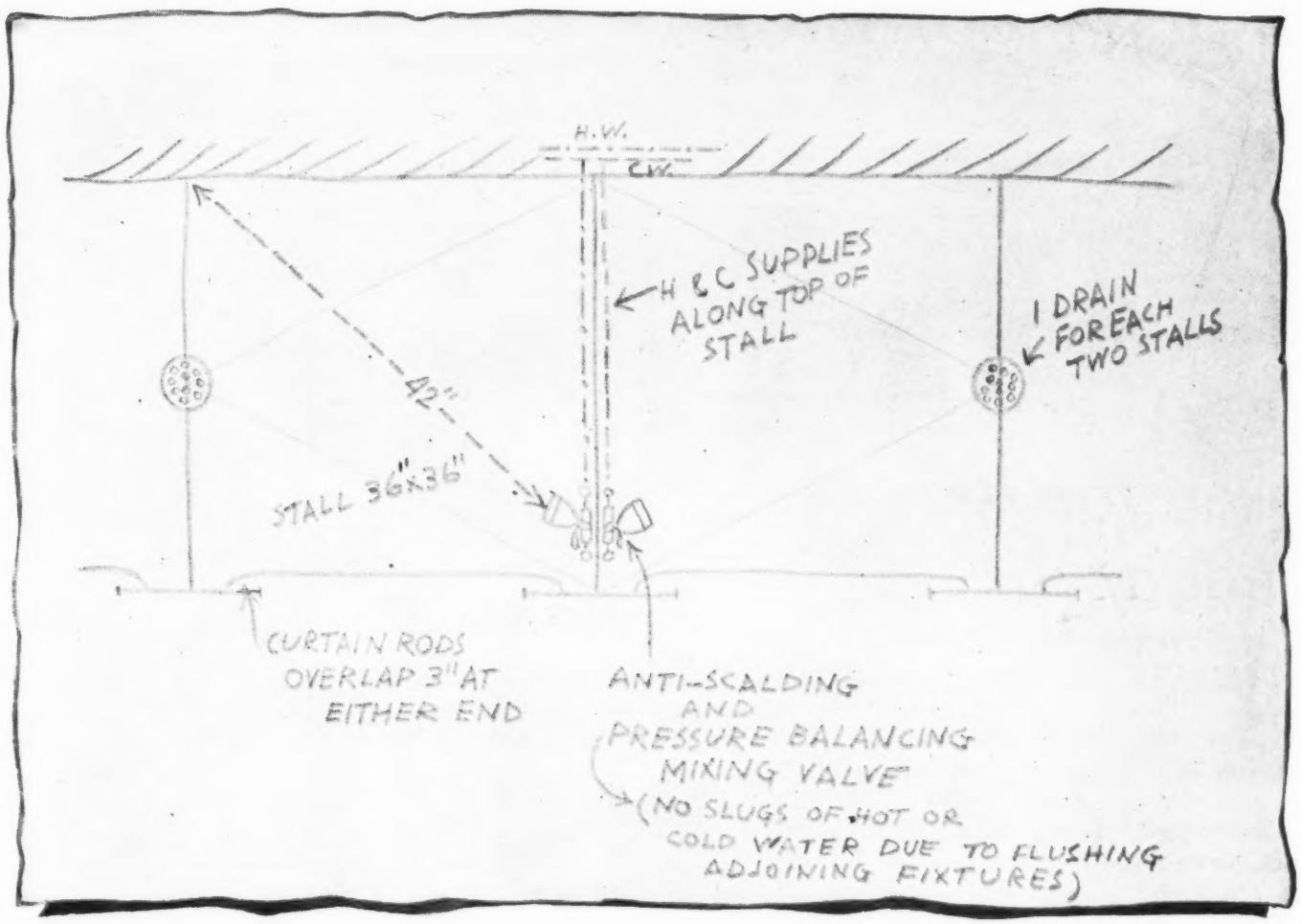
H.W.
L.W.
H & C SUPPLIES ALONG TOP OF STALL
1 DRAIN FOR EACH TWO STALLS
42"
STALL 36"x36"
CURTAIN RODS OVERLAP 3" AT EITHER END
ANTI-SCALDING AND PRESSURE BALANCING MIXING VALVE
(NO SLUGS OF HOT OR COLD WATER DUE TO FLUSHING ADJOINING FIXTURES)

This Pencil Sketch Made 1,000 Men Cleaner and Happier

Industry everywhere is rapidly swinging to the modern common-sense idea that workers' cleanliness, happiness and health must be zealously guarded in the plant.

For just this reason a large eastern company decided upon a new factory shower bath installation. A Clow Soldier of Sanitation was called in.

His answer was this rough pencil sketch. The ultimate result is an installation that gives the factory's 1,000 men shower facilities that the finest homes cannot equal for sheer practicability.

The shower head is located in a corner to gain the maximum spray area in a minimum space.

Spray is directed against a wall instead of a flimsy door curtain.

Controls are located just inside the door to end reaching through an icy or scalding deluge to adjust water temperatures.

These are simple things. But they help to illustrate how the Clow Soldier of Sanitation does not come in to you merely to show pictures in a catalog. His job is to help you fight ill-health, discomfort, insanitation, pollution and disease.

And to help you achieve this end with the very minimum through-the-years cost.

At his finger tips is the sum total of Clow's 52 years specialized experience—at his back the most complete line of specialized fixtures in the world.

The Clow Soldier of Sanitation is your natural ally on every building job where sanitation is likely to be an acute problem: schools, hospitals, industrial plants, public buildings and the like. Call him in. "Van." W. Van B. Claussen, 47 W. 34th St., New York City.

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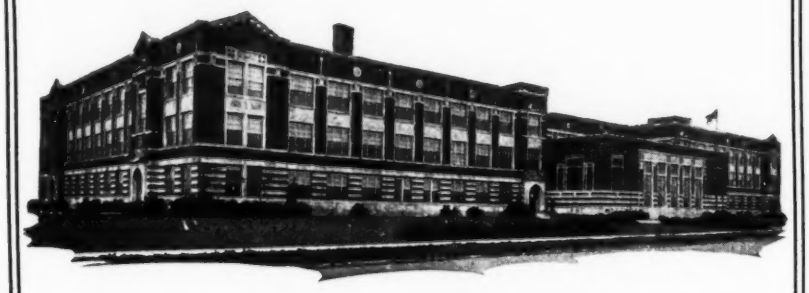
PREFERRED FOR EXACTING PLUMBING SINCE 1878

Consult your architect

International PROGRAM CONTROL



Woodward High School, Toledo, Ohio
Edwin Gee, Architect
Gil Southern, Consulting Engineer

Chosen for its dependability . . .

INTERNATIONAL Hourly *Supervised* Electric Time and Program Systems can be specified with confidence on the basis of past performance, present perfection, and future satisfaction. That is why so many of the nation's leading schools have chosen International equipment for controlling the movement of classes and study routines.

There is no school schedule either too simple or too complex to be adequately handled by an International Program Machine. Its series of bells, buzzers, gongs, and other signalling devices is operated in unison with the International Electric Time System and all units are supervised by a Master Clock that maintains strictly uniform accuracy throughout.

Consult the telephone directory in your vicinity. An International representative will gladly discuss your program problems with you.

COMPLETE LOW TENSION EQUIPMENT

Electric Time and Program Systems
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Fire Alarm Systems
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INTERNATIONAL BUSINESS MACHINES CORPORATION

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All rooms are within whispering distance of the Principal's office

through the Cone *on the classroom wall*

HOW do you direct them in case of disaster?

A great deal has been said about the Powerizer Sound System as a medium of education. But it is a safety measure and a thing of convenience as well.

No more disturbing scurrying of feet carrying messages through corridors. The principal can talk from his office to any one or any number of rooms simultaneously. No more awesome ringing of blood-curdling fire bells. A few reassuring words start the dismissal of every student in case of fire drill or actual disaster. The principal's voice is then amplified through the corridors to direct the orderly exodus.

A booklet telling of the many uses of Powerizer Sound Systems in schools will be gladly sent upon request. Powerizer Sound Systems are installed and serviced by our authorized electragists everywhere. They are in successful use in:

Theatres	Skating Rinks	Apartment Houses
Hotels	Amusement Parks	Hospitals
Restaurants	Fair Grounds	Railway Terminals
Dance Halls	Steam Ships	Schools
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RADIO RECEPTOR COMPANY, INC.
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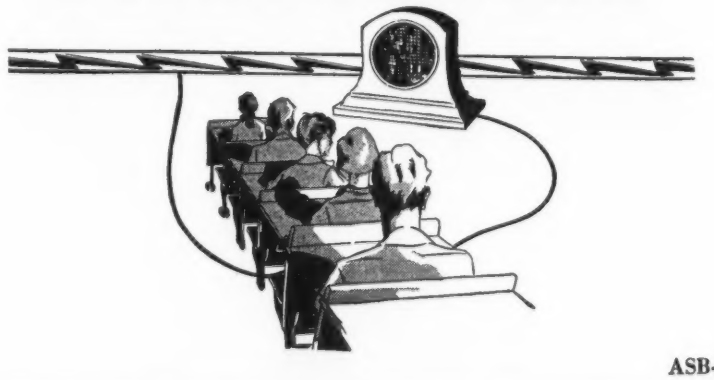
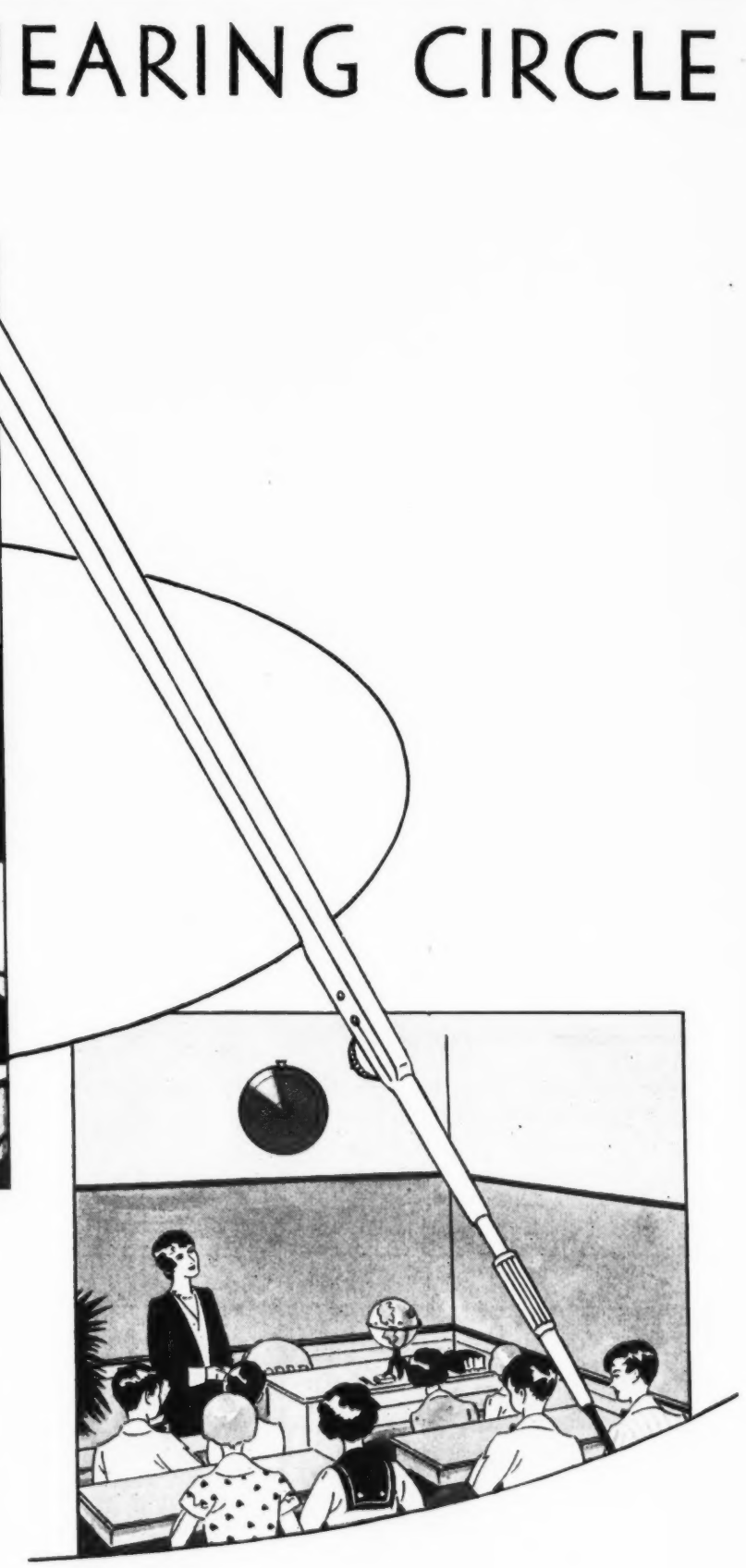
Licensed by Radio Corporation of America and Associated Companies

POWERIZER SOUND SYSTEMS



ASB-8-30

WIDEN THE HEARING CIRCLE



MAKE THE WHOLE SCHOOL ONE ASSEMBLY ROOM

Now the principal can conduct opening exercises, read general notices, give special instruction in every room or any desired number of rooms. No need for all to file into auditorium — the whole building is one assembly room when a Western Electric Public Address System is installed.

This equipment amplifies and distributes sound transmitted into a microphone. It hooks in with a radio set to receive current events broadcast and other programs of educational importance. And it may be used, too, with a Western Electric Music Reproducer, serving music appreciation courses by playing standard laterally-cut phonograph records.

In each case the quality of reproduction is what you would expect from apparatus made by Western Electric, manufacturers of telephones for the entire Bell system. For further information send the coupon to the distributors, Graybar Electric Company. Branches in 76 principal cities.

GRAYBAR ELECTRIC CO., A.S.B. 8-30
GRAYBAR BUILDING, NEW YORK, N. Y.

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CITY ..... STATE .....

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PUBLIC ADDRESS AND MUSIC REPRODUCTION SYSTEMS

Distributed by GRAYBAR Electric Company

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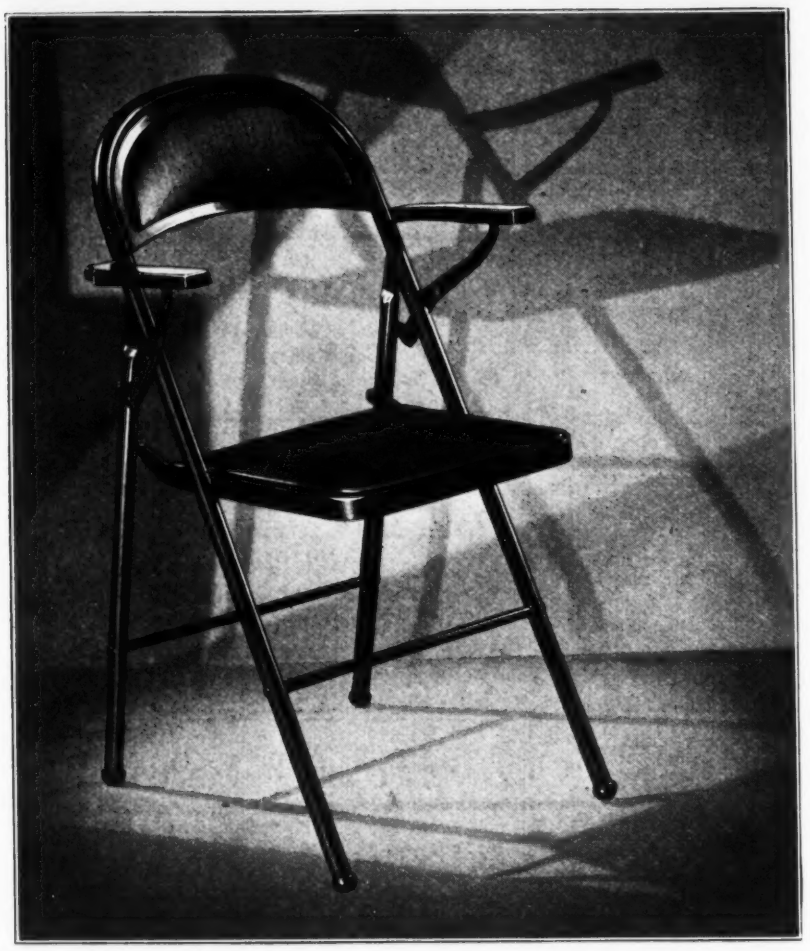

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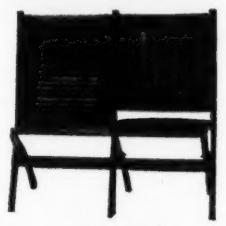

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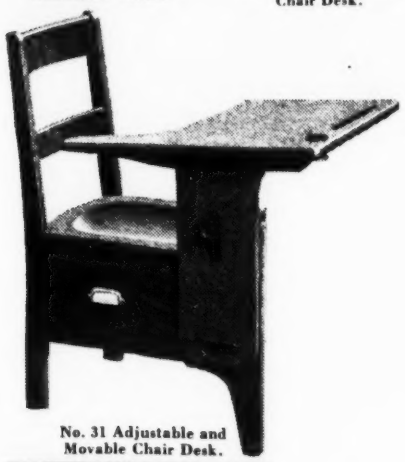

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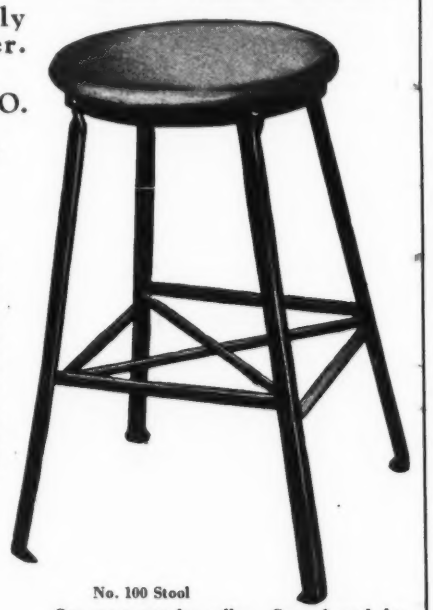

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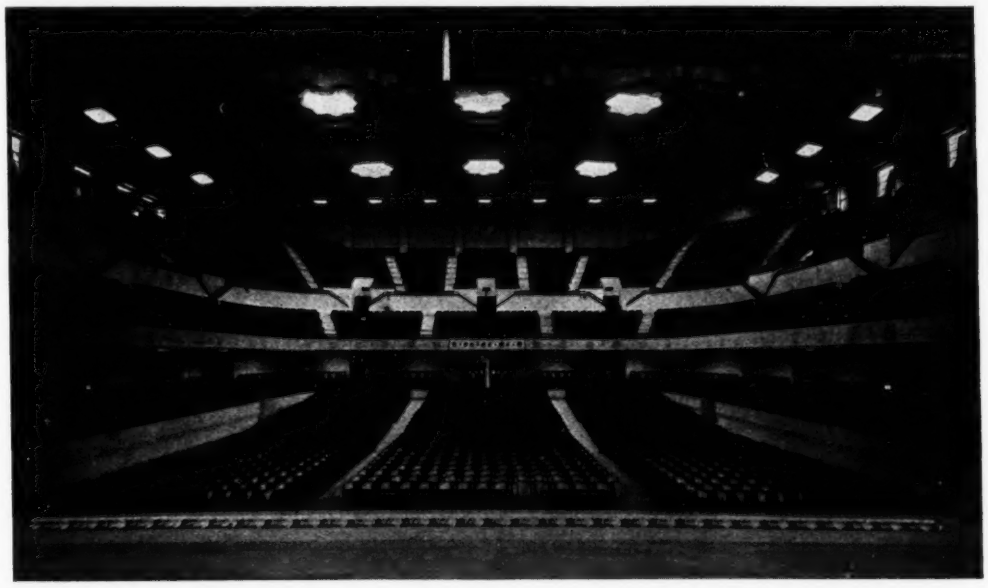

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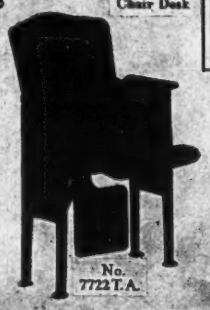

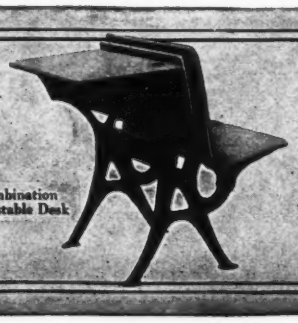

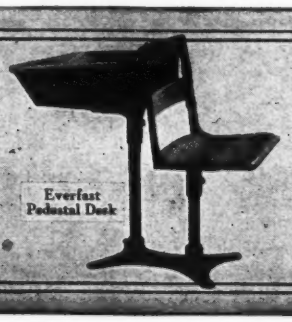

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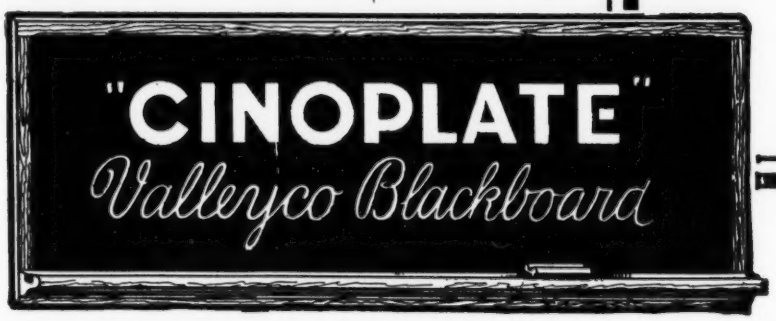

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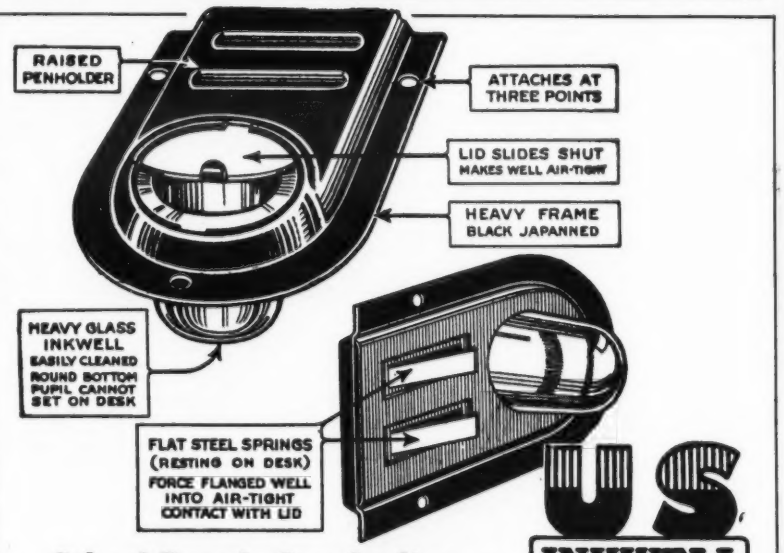

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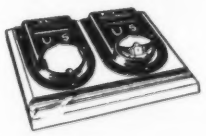

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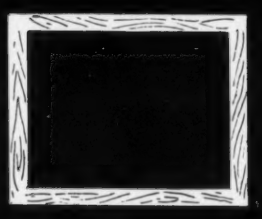

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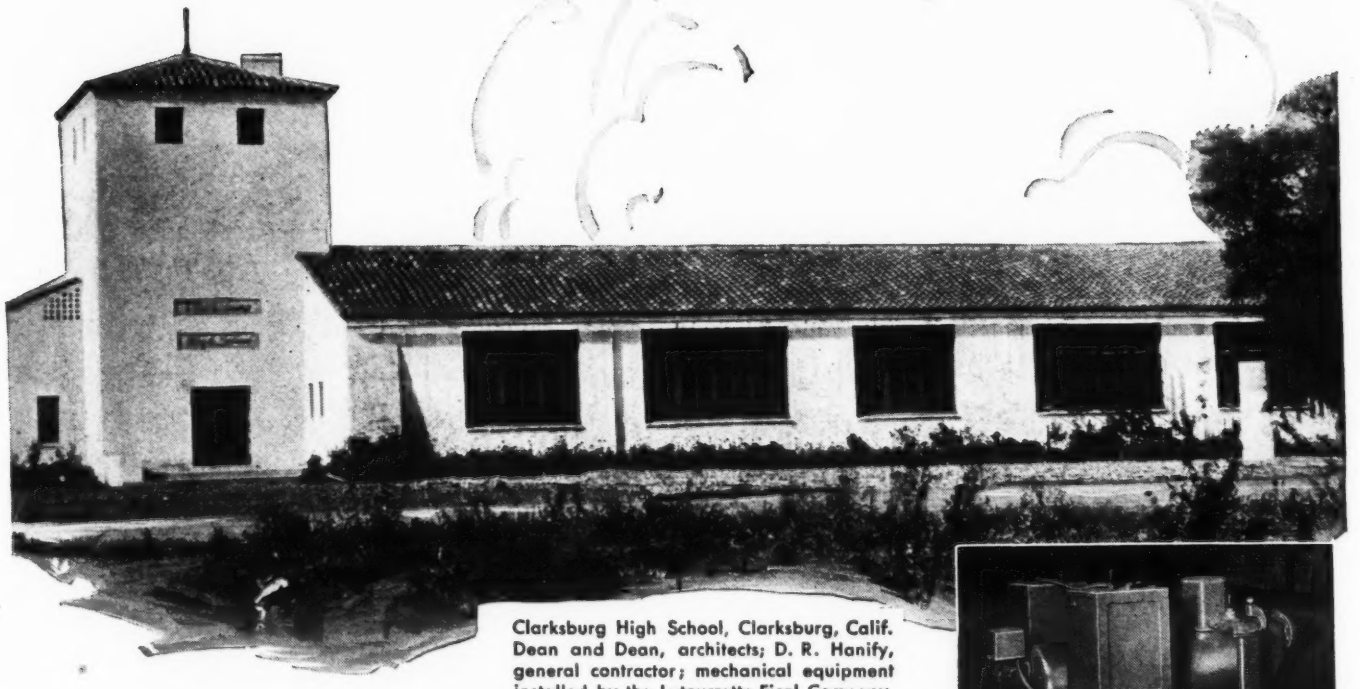

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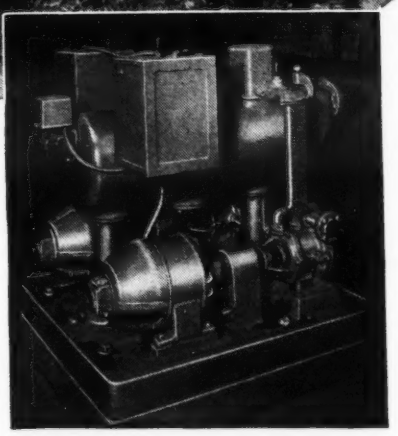

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VOL. 81
No. 2

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Vacation Reflections

The modern school administrator, who dreams of a delightful vacation season, in which fishing and boating, rambles in shady forest trails, and of hours in a secluded country nook, is rudely awakened when he begins to think of his job.

The summer months do not afford the school administrator much time for vacation pleasures. The schools which have been closed in June must be opened again in September. The army of pupils will be on hand to receive the offerings of a well-governed school system. The taxpayer expects that the school buildings are renovated, that all necessary repairs are completed, that the stock of supplies is replenished, that the instructors are ready to assume their task.

All this implies that the months of July and August may be vacation months as far as the pupils and teachers are concerned, but it does not imply that the board of education, the superintendent, business manager, secretary, and the office force can retire from the scene and go on a two-months' fishing expedition, or pick wild flowers in the woods.

There are school-administrative duties which can best be performed in the summer months. The buildings and grounds need attention, the school housekeeping paraphernalia must be replenished, and a thousand odds and ends must be looked after.

These operations, in order to be carried on with reasonable efficiency, demand deliberation, counsel, and agreement on the part of the administrators. Thus the summer months cannot become a season of idleness and recreation for those who are responsible for the orderly government of a school system.

THE EDITOR.

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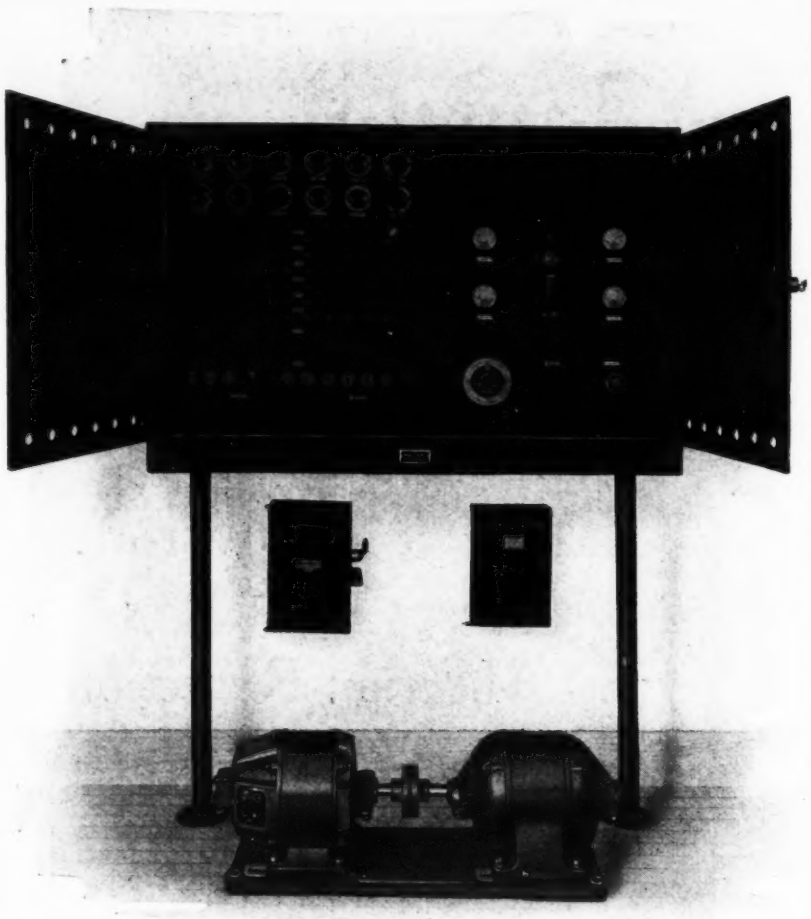
Editorial Material—Manuscripts and photographs bearing on school administration, superintendence, school architecture, and related topics are solicited, and will be paid for upon publication. Contributions should be mailed to Milwaukee direct, and should be accompanied by stamps for return, if unavailable. Open letters to the editor must in all cases contain the name and address of the writer, not necessarily for publication, but as evidence of good faith.

The contents of this issue are listed in the *Education Index*.



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School Board Journal

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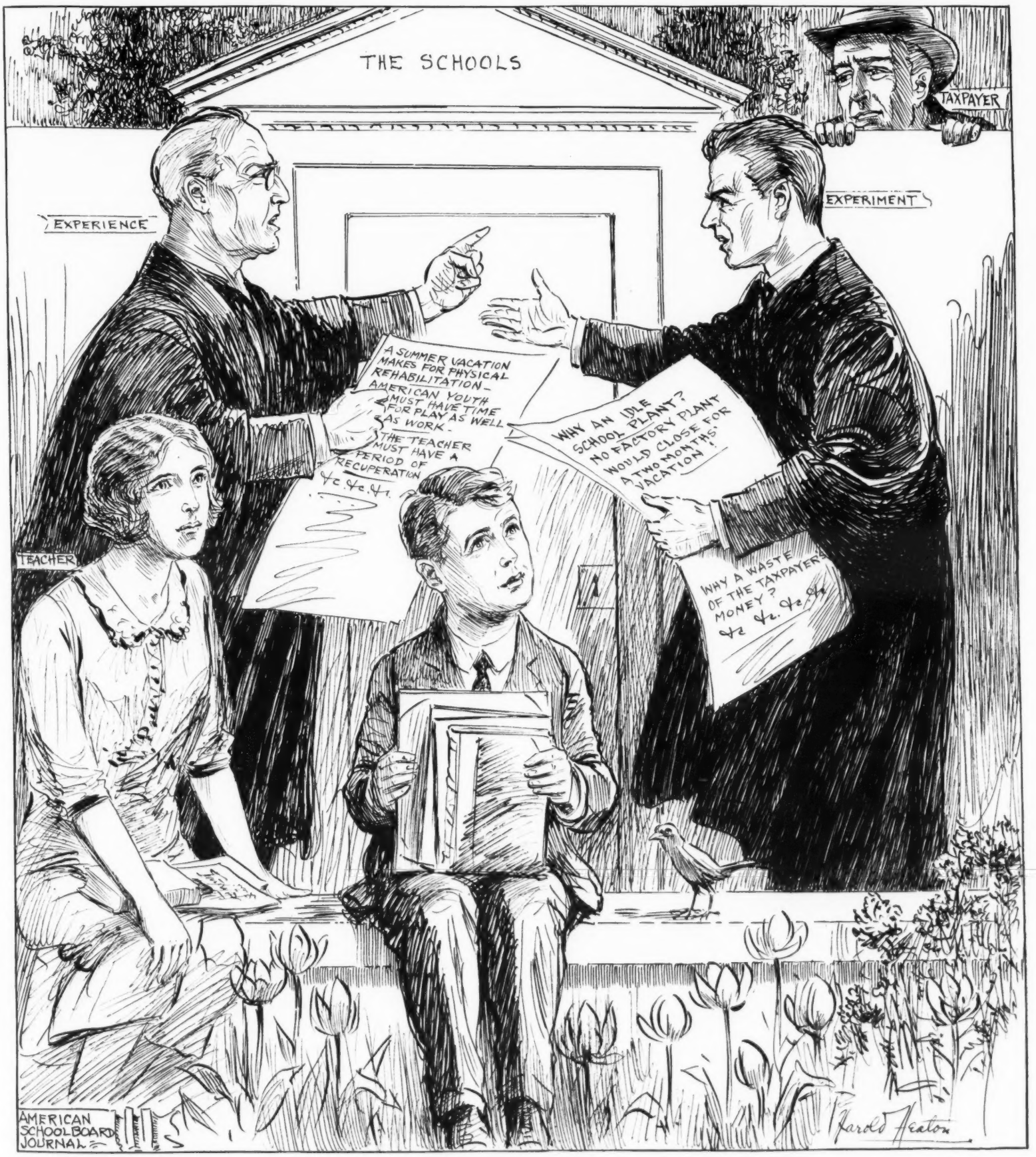

THE SCHOOLS
TAXPAYER
EXPERIENCE
EXPERIMENT
A SUMMER VACATION MAKES FOR PHYSICAL REHABILITATION— AMERICAN YOUTH MUST HAVE TIME FOR PLAY AS WELL AS WORK—
THE TEACHER MUST HAVE A PERIOD OF RECUPERATION
WHY AN IDLE SCHOOL PLANT? NO FACTORY PLANT WOULD CLOSE FOR A TWO MONTHS' VACATION!
WHY A WASTE OF THE TAXPAYER'S MONEY?
TEACHER
AMERICAN SCHOOL BOARD JOURNAL
Harold Heaton

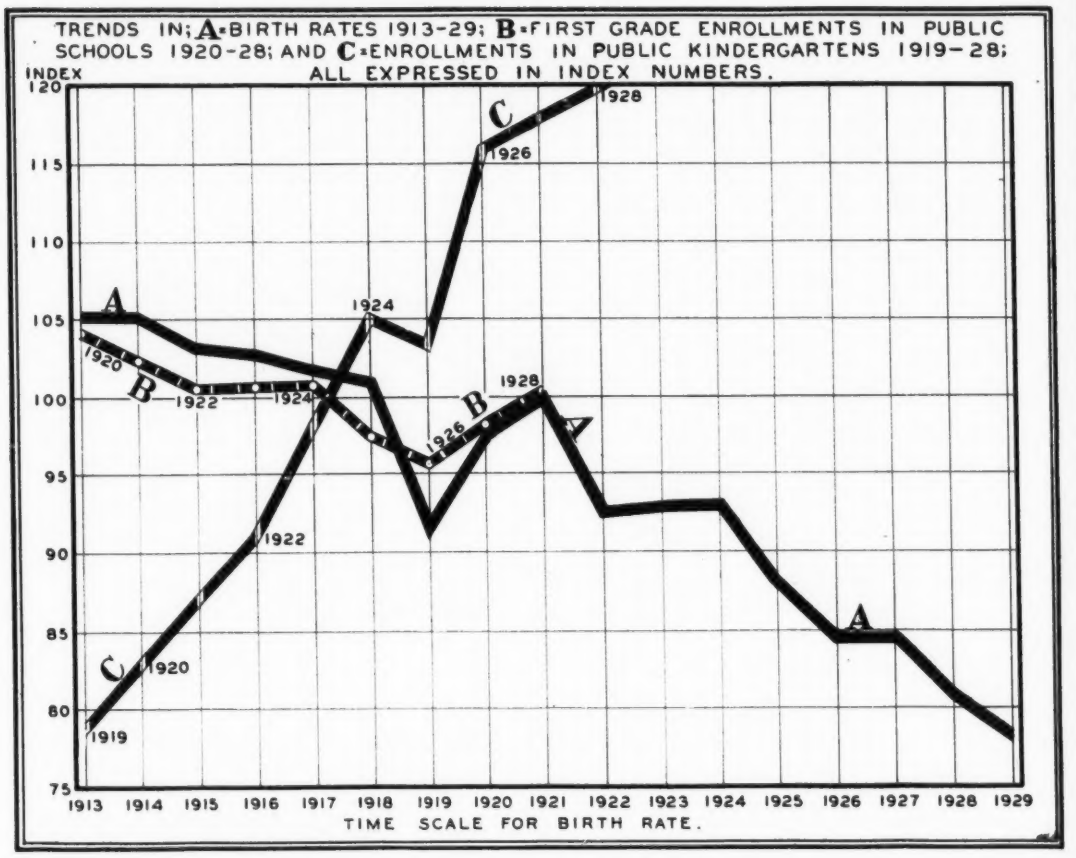
THE ALL-YEAR SCHOOL—WHO IS RIGHT?

Where are the Children?

Frank M. Phillips, Washington, D.C.

The number of children enrolling annually in the first grades of our public schools is rather sensitive to changes that take place in the birth rate, provided a sufficient time interval has elapsed between the dates used in making the comparisons. The birth rate in the registration area of the United States declined from 25.1 per thousand of the population in 1915 to about 22.3 per thousand in 1919, then increased to 24.3 in 1921, and has since declined to about 19 in 1929. The drop in the birth rate in 1919 followed the opening of the war and the 1918 influenza epidemic. The rise in 1921 followed the return of the boys to civil pursuits. First-grade enrollments declined from 4,323,170 in 1918 to 3,976,750 in 1926, and then increased to 4,171,037 in 1928. Children born in 1919 would normally enter the public schools in the school year 1925–26. The birth rate was low in 1919, and the first-grade enrollment was low in 1926. The birth rate came up considerably in 1921, and the first-grade enrollment increased correspondingly in 1928. Moreover, the public kindergarten, which is still a growing proposition, suffered a decline in enrollment in 1925, the fifth year for those born in 1919, and has increased since in a manner comparable to the increase in the birth rate for the two years following 1919. The changes indicated above are shown graphically in the following chart which allows a six-year lag for kindergarten enrollments, and a seven-year lag for first-grade enrollments. Both birth rates and enrollments are reduced to index numbers to facilitate comparisons.

With the facts before him, the statistician is generally willing to predict happenings just a little bit ahead of the game. If the conditions which have influenced changes in the past can be depended upon to continue to perform in about the usual manner, he wraps the mantle of the prophet about him and hazards a guess. If he succeeds he tells you about it afterward. If he fails, he attracts your attention to some other bit of interesting data. If our system of keeping school records does not change materially, if the relation of public-school enrollment to private-school enrollment remains constant,



SCHOOL-POPULATION AND ENROLLMENT TRENDS

and if our attendance regulations do not fail, it is safe to predict a first-grade enrollment in the public schools of about three and a quarter million children for the school year 1935–36. The computed figure is 3,242,247. This number is more than a million short of the 1918 enrollment. It represents a loss of 25 per cent of the number of children enrolled 18 years previously. The kindergarten? After 1930 data have been assembled it will be possible to make an estimate.

In making predictions, and in planning for the future, there is no substitute for experience. The experience in this instance indicates that the supply of children eligible for entrance for the first time to the public schools is gradually diminishing. Wise is he who can profitably use the prophecies based upon experience.

The Legality of School Publicity by Boards of Education

Ernest F. Monroe, LL.B., A.M., Fellow in Education, University of Cincinnati

Is it legal under the American law for boards of education to expend public money for school-publicity purposes? Authors of books and articles on school publicity seem to assume a positive legal right. Various kinds of school publicity are actually being employed and paid for out of public funds. There are annual reports, monographs, house organs, directories, circular letters, advertisements, and many other types.

The purpose of this inquiry is to ascertain the extent of the legal right for those purposes, as evidenced by judicial decision. This study involves an examination of the several state and sectional reports of court proceedings — as directed by the various authorities in legal digests, which will be included with the reports in the citations given.

The Four Limitations

In the judgment of the writer, there are four limiting boundaries of the legal right in question that seem to be established in the American law.

1. The school-publicity powers of public boards of education are not *general* powers and are not of *common-law* origin, but are *statutory* and *granted* powers, vested in the boards only through the constitution, statutes, and sometimes charters of the states, respectively.

"The power of a school corporation is much more limited than ordinary public corporations, for it has no general power to incur debts or execute evidences of indebtedness. — Cyc. 35: 973. Union School Twp. vs. Crawfordsville First Nat. Bk., 102 Ind. 464; 2 N. E. 194.

"A school district is a quasi corporation of a public nature, and its board of education cannot expend money except for purposes expressly authorized by statute. — Amer. Dig. 43: 2275. Cyc. 35: 973. Hotchkiss vs. Plunkett, 60 Conn. 230; 22 Atl. 535.

"Quasi corporations such as school districts have only such powers as are granted by statute. — Cur. Dig. 3: 2298. Grabe vs. Lambro Independent Consol. School Dist. No. 20, Tripp Co. (S. Dak.); 221 N. W. 697."

2. The school-publicity powers of public boards of education are either specifically expressed or reasonably implied.

"As a general rule, a school district is liable for such expenses and charges, and such only, as are expressly or impliedly authorized by law, and such as are necessarily and properly incident to the performance of a statutory authority or duty. — Cyc. 35: 969. Estes vs. Bethel, etc., Sch. Dist. No. 19, 33 Me. 170. Hartman vs. Mt. Joy Sch. Dist., 68 Pa. St. 441.

"As a general rule, the power of raising taxes for school purposes may be exercised for such purposes only as are expressly or impliedly authorized by the provisions of the constitution, charter, or statute granting such power, such as for educational and building purposes, and for such purposes as are incidental to those expressly authorized, and a levy of school taxes for purposes different from those authorized is void. — Cyc. 35: 1001. Green School Dist. No. 1 vs. Bailey, 12 Me. 254. Burhans vs. Union Free School Dist. No. 1, 24 N. Y. App. Div. 429; 48 N. Y. Suppl. 702 (affirmed in 165 N. Y. 661; 59 N. E. 1119). Goldsboro Graded School vs. Broadhurst, 109 N. C. 228; 13 S. E. 781. Fitting vs. Glassbrunner, 1 Pearson (Pa.) 544.

"Under Mass. Gen. St., c. 40, s. 6, directing school committees annually to make a report of the conditions of the schools, and to cause it to be printed for the use of the inhabitants, it is held that a city school committee may charge to the city the expense of printing an address by them to the people thereof relating to a case of corporal punishment in one of the public schools, the address being referred to in their subsequent printed report as a part thereof. — Cyc. 35: 969. Wilson vs. Cambridge, 101 Mass. 142."

Strict Construction

3. The school-publicity powers of public boards of education are to be *strictly construed.*

"Statutes prescribing respective duties of school districts and school boards must be strictly construed. — Leahy vs. Joint School Dist. No. 12 of Towns of Greenfield and Lake, 194 Wis. 530; 217 N. W. 293.

"The power of a school corporation is much more limited than ordinary public corpora-

(Concluded on Page 112)

The Superintendent and the Business Manager

E. E. Oberholtzer, Superintendent of Schools, Houston, Texas

The theme of this discussion is coöperative service. No other words are so expressive of the relationship in democracy as these. What has education to do with democracy? At once one finds himself seeking words with proper connotation that will not mislead. The profession of educational administration lacks specific terminology, in contrast with some of the older professions. For example, the profession of medicine has a definite vocabulary of descriptive terms. Such words as posterior and anterior have specific connotation when embodied in medical phraseology; but when we enter upon the discussion of education, we shall have to keep in mind the fact that we have no definite terminology, and that, therefore, the words we use have a wide variance in meaning. Broadly speaking, education is the process of acquiring, directing, and using experiences which come in life.

The very fact that the American people are willing to spend 2.8 per cent of their total income in support of public education is tangible evidence that the people are solidly behind the public schools. More and more the sentiment grows that the future of democracy depends upon the liberal education of the masses, and that the public schools in these United States will continue to present an ever-increasing need for support, both financially and coöperatively.

Public education is charged with the obligation of keeping step on the march of progress with social, economic and industrial changes, thereby necessitating greater coördination of educational and business aspects of public-school administration. The problem of finance and administration is immediately most vital and urgent. To meet this situation, trained, competent, and far-seeing executives are in demand. Such executives in their management must bring the public into intimate confidence and assist the supporting public to understand and intelligently determine policies.

Business and Educational Affairs

Fiscal management of public education must be prepared to meet problems as they arise. Such management must be efficient and active in order that maximum educational service may be continuously available on adequate economic levels. Waste and extravagance, when due to ignorance or lack of preparation on the part of executives, are no longer excusable. The work of a school executive is, in fact, a profession which requires continual study and preparation, scientifically trained personnel, and true professional service. The business and educational affairs of the public schools are inextricably interdependent, requiring coöperative service, professional technique, and the application of business principles so coördinated in the administration of school systems that larger dividends may be returned on funds invested.

Certain fundamental principles underlying the successful administration of a public-school system are as fixed and immutable as the economic and fundamental principles which govern industrial enterprise, yet the objectives for which the public schools are maintained are extremely different from the ends sought by industrial enterprise. Profit or dividends accruing from public-school administration are more or less intangible and cannot be computed in economic costs. Public good will and the advancement of society to higher levels of living and good citizenship are too remote to be measured in the monthly or yearly balance sheets. The school executives must be alert always to the fact that public education and the educational problems are susceptible to the movement of society as a whole. Such social movements are never static but always dynamic, producing subsequent changes in educational policy, sometimes in teaching, sometimes in classification of pupils or in child accounting, each having direct bearing upon the business administration of a school system.

The present paper is an abstract of an address which constituted the high points in the meeting of the National Association of Public School-Business Officials, May 21, 1930. School-board members will especially find the article of value in the fact that it expresses most clearly the status and the relations of the superintendent and the business manager.—*The Editor.*

Drama of Readjustments

The greatest drama of the past 25 years has been the drama of educational readjustments. Following recent phenomenal increase and expansion of the uses of the machine in industry, accompanied by increased division of labor, greater urbanization of people, and changes in the ways of earning a living, the scope of the school has been widely extended; and the end is not yet. Whether there shall be included at the lower extremity the nursery school and at the upper extremity the junior college as integral parts of our public-school system is a pressing problem.

Moreover, the public has accepted the universal function of the school to be that of administering to every class within certain age limits, including the children of all races or creeds, be they bright or dull, normal in body and mind or physically or mentally handicapped. Each child must be given the opportunity and the means with which to complete his preparation for optimum service, and a complete life according to his ability, aptitude, and fitness. Such, then, are the responsibilities of the school official who controls education.

The public-school system in every district of America is controlled by a board of school directors who are responsible to the electorate, such district being "a body corporate, possessing the usual powers of a public corporation." "Each individual district functions as a part of a state school system, operating under laws and powers granted by the legislature."

"The state laws and city charters may control the authority of the board and limit its jurisdiction," and in the main, "a school district is a creature of the state and has no authority save that which is expressly conferred upon it." In this respect the public-school system is a business enterprise, operating under what may be called a charter, with powers and responsibility well defined.

The Three Administrative Groups

The directing or control body, the school board, has authority to employ school executives and other professional employees and to delegate responsibility to them. Its chief function should be to determine policies and appraise procedures and outcomes and to see that these policies and the work of the school organization are carried on through the delegation of such responsibility to the school executives. In each local district there are three groups who are directly interested in the school administration; viz., the public, the school board, and the superintendent and his instructional staff.

The business management and educational administration of the school systems are inextricably interdependent. There was a time when the board of education assumed that the business management of school systems was their own responsibility. The expansion of educational programs, increase of educational costs, and the greater complexity of organization have had their influence in changing this conception of school management. It is, therefore, becoming increasingly necessary for boards of education to delegate to experts or professional officers the executive management which school boards themselves formerly exercised. Efficient business administration in a public-school system makes possible the advancement of the material needs of such a system so that each child may progress educationally in accordance with the purposes and outcome of the entire educational program.

Status of School Business Manager

Business management does not exist for itself alone, for it is coöperative service with definite responsibilities, such as anticipating needs, recognizing problems and assisting in the solution of such problems, and in every way promoting the educational program with unending continuity and advancement. The managing school executive, superintendent or business manager, must be one who is sufficiently trained to understand the applications of research findings, to appreciate scientific methods, and to evaluate and direct the work of a professionally trained staff toward definite goals.

Moreover, the functional divisions of educational service, as well as most any other public service, may be classified in three fields; namely, legislative, executive, and appraisal. The legislative function is concerned primarily with plan building. The executive function is concerned with the plan working, or working the plan, i.e., putting the policy into effect, developing technique, and securing results. The appraisal function is that which judges the effectiveness of the operation of the plan, determining the amount of success achieved and modifying the procedure as study and evidence demand such change.

School executives are counselors to the board of education in building or setting up the plan of work, and they are the directors in carrying out the plan. In short, they are the engineers who plan the work and work the plan. Through scientific planning the control body interprets and expresses the social needs of the people. When the board of education, in coöperation with its executives and advisers, set up a comprehensive and practical plan, it has made the first step in proper administration. The school executive is the technician. It is he who analyzes the needs on the basis of scientific evidence. It is he who presents such evidence for interpretation and he who suggests a means and a method for carrying out such plan.

School administration is fraught with plan making. There is need generally for the current budget to be thought of in larger units than one year's planning. There is need generally for the building program to be projected over a period of years, providing for continuous appraisal and easy flexibility for modification.

The final test of the plan is the translation of such planning into an educational program. This program is the basis for coöperative service. The public, the employed staff, and the board of education should be mutually coöperative. Business administration is vitally concerned with such a program. It must help to interpret the social needs in terms of finance. It must understand the ability of the community to support the program and it must appraise the willingness of the community to make the sacrifice to secure such benefits. Whether the problem be one of teachers' salaries, cost of equipment, reorganization of school units, or even the revision of the curriculum, business administration is so closely related in supporting the instructional needs that nothing but coöperative effort can bring the best results.

The Cooperative Service

Summarizing, then, the coöperative service of the superintendent and business manager depends upon:

1. A complete understanding of both the educational philosophy and the educational objectives for which the school system is operated.
2. A scientifically and professionally trained staff which includes the executive who is the leader.
3. Unified effort and support of the policy and program approved by the board of education and directed by the superintendent.
4. Efficient organization and assignment of duties.
5. Provision for a thorough system of accounting and appraisal which shall be used as the basis for keeping informed (*a*) the professional staff, (*b*) the board of education, (*c*) the public.

Of these groups special reference should be made to the public and the manner in which it is informed of the work of the schools. The degree of success achieved in public-school administration depends finally upon the active and sympathetic support, as well as the financial support, from the public. The willingness of the community to support education is in direct proportion to its confidence in its school administration, its understanding of the school program, and its ability to pay. School management should, therefore, provide simple, comprehensive, and continuous information about the schools for its community. This information should be presented in a common-sense manner, should provide for common-sense interpretation of social needs and ability of the community to support the progress.

The principles of coöperative service in school administration can be illustrated best by reference to the community served. These illustrations are taken from the community which the speaker has served during the past six years. Houston, Texas, is a growing city of approximately 300,000 people. Her population has increased, according to the last census report, 110 per cent over the census as reported in 1920. The most rapid growth has been during the past six years, evidenced by the doubling of the school enrollment in this period.

Houston's Major Problems

Three major problems of school administration have challenged the attention of the Houston board of education during this period. The first one involved the reorganization of the old seven-four system to the kindergarten-five-three-three type of organization, thus introducing the junior high school and the subsequent building program adequate to meet the needs of a rapidly growing city projected over a period of years. Coincident with the first came the accompanying problem of rewriting the curriculum and readjusting the instructional program, both so intimately tied up with the building program that the solution of each separately was impossible. The third and most treacherous problem was the revision and rewriting of the salary schedule. The board of education called upon its executives for analyses of the needs, based upon definite information, together with suggestions as to how these needs might be supplied, and the methods to be used.

The building survey was the first step, which involved a complete survey of the city, studying the social, economic, and industrial fields, looking forward to the planning of a building program. Preceding this step, however, was the determination of the objectives of the type of organization to be used. The board of education laid down a certain plan to be followed, which briefly, was to this effect: The school executives recognized as expert technicians and leaders in this study were the superintendent, the business manager, and the consulting architect. It was the work of this executive staff to get information to evaluate such information and to suggest

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procedures for carrying out the program and, at the same time, provide a means of appraisal so that the board of education as the control body would have information at hand when it needed to exercise its function in determining policies or in appraising the work accomplished. This executive staff began at once to derive and set up standards for guidance in the building program.

For example, one of the first problems to determine was the area of the elementary, junior- and senior-high-school sites. Using the best practices and the more recent trends, it was decided to allow 5 acres for the elementary-school sites, 10 to 15 acres for the junior-high-school sites and 15 to 25 acres for the senior-high-school sites, with a minimum of the first-mentioned number. It was necessary for this staff to supply information to the board of education and to follow such information with discussions among the laymen group so that the public might be better informed. In this work the executive staff coöperated whole-heartedly.

Out of this situation another problem arose, viz., how to meet certain difficulties that are usually encountered in acquiring school sites. There are always present, certain groups who for selfish or other motives try to direct the location of new school sites. The survey policy approved by the board of education, condemnation proceedings automatically followed for the purpose of acquiring the property. In carrying out such a policy, it was necessary that the findings of the committee be kept confidential in all matters which might lead to price fixing or to organized attempts to frustrate the carrying out of such policies.

In these matters the business manager was most largely involved. The board of education imposed full confidence in him, giving him free hand in the selection of the personnel of the appraising committee, and in the condemnation proceedings hold him responsible for the results obtained in accordance with the policy established. At no time did price influence the selection of sites. Instructional program, the desirability of the site, its location and relation to the community served were the prime considerations. Needless to say, many complications might have arisen in such a situation had the executive staff not fully considered the relationship of this service to the ultimate objective of the school.

Determining Upon Building Detail

Again, when the consulting architect had begun his planning of certain definite features of the building program, it was necessary to select standards to be used. For instance, how much blackboard space should there be; what type of construction should be used in the corridors; wherein should the heating installation be changed; what type of constructional material should be used in ceilings? To answer these questions involved intimate experience and observation of the school plant, from the standpoint of durability, maintenance cost, and instructional program.

Both the consulting architect and business manager must appreciate the manifold changes in the instructional service. The modern school has traveled far from the traditional school. Buildings can no longer be designed on the basis of their appearance, nor on the basis of certain standard features. General practice, or frequency is not a safe guide in erecting buildings. For instance, is the lunchroom to be used as a three-one combination, i.e., lunch-play-auditorium activity programs, or are these activities to be carried on in a platoon-program or in the unit-type instruction? These are specific conditions which must govern the plan of modern buildings.

To facilitate this program of coöperation, the executive staff must determine the type of floor plans and successive units to be built, so that the first unit, in many instances a small one, might be constructed, or the entire building, without loss in efficiency. Further planning has utilized uniform standards, making more efficient use of the building.

The business manager, through his organization, cared for the strictly business features, such as contracts, accounting, checking of mechanical plans and specifications, and the general efficiency of construction. The superintendent, although chiefly concerned with the instructional program, was continually studying the adaptations and changes in types of buildings, use of constructional material and greater efficiency in building utilization. The consulting architect was the interpreter, adviser, and planner, whose work was approved only as it enhanced instructional efficiency and the welfare of the children.

Worth of Cooperative Service

The true worth of such coöperative service can be more fully appreciated when application is made to the sacrifice fields. One very apt illustration of this should be mentioned, i.e., the problem of whether or not certain systems of heating-ventilation requiring a certain type of machinery, equipment, ventilation ducts, and other elaborate accessories, should be installed. What policy should be pursued? There was division in the executive staff. What best practice, what scientific proof, and what authority could settle this much-vexing question?

In this building program, including eight new junior high schools, the recommendation of the executive staff resulted in a saving of a little better than $200,000 in the contract cost of these buildings because, by investigation, a research study was found that answered the question once and for all time.

One other suggestion should be offered to show how wide and fruitful is the field for improvement in the training of the personnel staff. How shall teachers, principals, supervisors, custodians, supply commissioners, and others come to understand each other, appreciate fully the importance of each other's work, learn to conserve energy and lend encouragement to best effort? These are requirements which are satisfied best by proper training of the personnel. Many of this group have met admirably some of these problems. Preparation and training in service, accurate accounting and measurement of accomplishments, are prerequisites for efficient administration.

What then is the final measure of success? Can this measure be the rank obtained by comparison of your city with neighboring cities or by setting up norms to find where your community is located on the curve distribution? Should the expert be called to gather the case history of your community, or should you, a

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The County Unit in School Administration

Its Present Status in the United States

Carl G. Leech

Any discussion of the county unit of school administration as it exists today in the United States must necessarily take its departure from a definition of the term itself. Right at this point our difficulties begin. If one analyzes the types of administration in the states which are usually called county-unit states, it is evident that no two are exactly alike except in general outlines. We can probably accept, however, a definition which appeared in the bulletin of the United States Bureau of Education, (1926, No. 22,) entitled, *A Manual of Educational Legislation*. This states that "the county unit is the term applied to systems in which the schools in the county (city schools usually excepted) are organized as a single system under one board of education and supported largely by county funds." The present discussion will outline certain fundamental considerations concerning county-unit organization and administration as they are viewed by schoolmen and will describe strong features and defects in such systems as they exist today.

Eleven States Have County Systems

Authorities generally agree that there are eleven states which may be called county-unit states. These are, with one exception, located south of the Mason and Dixon line. The eleven are: Alabama, Louisiana, Utah, Kentucky, Maryland, New Mexico, Tennessee, Florida, Virginia, North Carolina, and Georgia. A number of states likewise have passed laws by which counties may vote to establish the county as a unit. These are Montana, Nebraska, Arkansas, Oregon, Texas, and Minnesota. It should be added that Ohio has a law by which rural areas are united into a semicounty system that possesses many features found in at least the weaker of the county-unit states. In this discussion all of the characteristics assigned to the several county-unit systems are those defined and delegated by state constitutions, state laws, or by rules and regulations of state boards of education, or by such other persons as are qualified under the law to determine them. No reference is made to characteristics or functions which may be assumed by any person or body by common consent.

Two authorities at least have presented excellent analyses of the principles of county-unit school organization, and are so generally regarded as authoritative, that they are presented here. The first of these was Benjamin J. Burris, formerly state superintendent of public instruction in Indiana, who in 1924 had prepared and published a bulletin of his department entitled *The County School System, How Organized and Administered*. Dr. Burris presented the following criteria for a satisfactory county system:

Criteria of Satisfactory System

1. A small county board of education is at the head of the system.

2. The county board of education is elected solely as a county board of education; that is, it performs no duties connected with any other office, and is elected directly by the people.

3. The terms of its members overlap so that at no time is the board composed wholly of new members.

4. The board's control extends to all the schools of the county, with the possible exception of the schools of large cities.

5. The county board:

a) Appoints the county superintendent of schools;

b) Makes the county superintendent its executive officer, through whom it exercises the following powers:

(1) Divides the county into school-attendance districts, and in its discretion, consolidates schools;

(2) Determines the location of schools;

(3) Provides and maintains school grounds, buildings, and physical equipment;

(4) Provides instructional equipment and supplies;

(5) Controls transportation of pupils;

(6) Appoints principals and teachers and fixes their salaries;

(7) Appoints supervisors and fixes their salaries;

(8) Appoints attendance officers and fixes their salaries;

(9) Appoints janitors, bus drivers, and all other employees and fixes their salaries;

(10) Determines all educational policies;

(11) Determines, within uniform legislative limits, the school-tax rate and makes or causes to be made the school-tax levy;

(12) Issues bonds, subject to the limits of state law, or submits to the people for their approval the question of issuing bonds.[1]

Assuming these eighteen standards as a basis of judgment, Burris found that the eleven county-unit states ranked as follows: Alabama, 16 points; Louisiana, 16 points; Utah, 16 points; Kentucky, 15 points; Maryland, 14 points; New Mexico, 13 points; Tennessee, 13 points; Florida, 12 points; Virginia, 12 points; Georgia, 10 points; North Carolina, 10 points.

This ranking seems to assume that Alabama, Louisiana, and Utah, with 16 points each, are the strongest county systems, and that North Carolina, with 10 points, is the weakest. This ranking assumes that each of the eighteen points is of equal importance with every other point, an assumption which needs defense.

Butterworth's Four Factors

A second authority, J. E. Butterworth, in his *Principles of Rural School Administration*,[2] calls to attention the fact that any such terms as "strong" versus "weak," or "complete" versus "partial" county control are unsatisfactory as terms of definition.

In his opinion the following three factors require definition: (1) The *degree of control* which the county should exercise over the schools within its borders, if the organization is to be called a county unit. This refers to the relationship between the county school organization and that of the local school district or subdistrict and their respective powers. (2) The *territorial inclusiveness* of the county unit. It is necessary to know whether the county unit includes all districts except possibly large cities, or whether relatively small districts may be independent. (3) The *type of organization* provided for the county unit to make it function effectively, and the extent to which administrative efficiency is made possible by the set-up.[3] Butterworth concludes, therefore, that "it is evident that there are two factors in making an effective county unit: The degree of control exercised, and the form of organization needed to make that control function wisely."[4] In the light of these considerations it may be concluded therefore that Burris's ranking may be subject to some revision to determine which types of county-unit systems are essentially the strongest, and which are relatively weak.

On the basis of the two factors just named — the degree of *control* exercised, and the form of organization — Butterworth[5] classified county school control into four types: Type I consists of the county-unit states of the "strongest" organization and includes Louisiana, Maryland, and Utah. Type II has county-unit organization of the "strong" type, but not so strong as Type I, and includes Alabama, Florida, Georgia, Kentucky, New Mexico, North Carolina, Tennessee, and Type III is a semicounty unit, or county unit of the "weak" type. In this group are included Montana, Oregon, Nebraska, and South Carolina, the first two of which have optional legislation. Type IV exists in states having some elements of county control, among which may be listed Ohio and Mississippi.

The Three "Strongest" States

The three states which Butterworth classifies as of the strongest type, namely, Louisiana, Maryland, and Utah, are singularly alike in their set-up. Foremost in importance is the fact that each includes in the county-unit organization practically all school districts of the county. In Maryland only the city of Baltimore is independent, while in Utah only five cities with a population of over 5,000 are independent of county control. In Louisiana no cities are independent, but special powers and forms of control are set up in parishes or counties containing large cities. In all three states, the county board selects its own superintendent and makes him its executive officer. Likewise, each of these states gives its county board control over all policies, appointments, property, and financial affairs, except that Maryland boards cannot appoint their subordinate employees like janitors and bus drivers, nor can they set the tax rate independently, nor issue bonds. Maryland has a further weakness in that its county boards are appointed by the governor, a method which opens the door to political manipulation.

The second degree of county control recognized by Butterworth is found in eight county-unit states, namely, Alabama, Florida, Georgia, Kentucky, New Mexico, North Carolina, Tennessee, and Virginia. The striking difference between this group and the three of the Type I is in the fact that these states permit large cities, and small towns or villages to become independent of county control. The county organization therefore has jurisdiction over only rural school districts and small villages.

The Eight "Strong" States

In Alabama, by state law, cities of 6,000 population and over, are independent in one county, while in all other counties the option is given to cities of 2,500 population or more to organize independently. As a matter of fact, a number of towns having fewer than 2,000 inhabitants are free from county control. In 1927, however, the legislature passed a law requiring that in counties having a population of 75,000 to 100,000 by the latest federal census, the control of all schools should be vested in the county board of education, without regard to the size of the constituent districts.

In Florida, the state makes it possible for any school district, no matter how small, to become by vote of its people, a "special tax dis-

[1] Burris, Benjamin, Jr., *The County School System, How Organized and Administered*. State of Indiana, Department of Public Instruction, Educational Bulletin No. 73, Indianapolis, Indiana, 1924, pp. 36–37.

[2] Butterworth, Julian, E., *Principles of Rural School Administration*, New York, Macmillan, 1926.

[3] *Ibid.*, pp. 102–103.

[4] *Ibid.*, pp. 103–104.

[5] *Ibid.*, pp. 358–359.

trict," which gives it almost complete independence. While a recent survey of the state educational system of Florida did not find that this privilege constitutes a menace to county administration, a study by another investigator[6] claims that there has been a marked increase in the number of special tax districts and a corresponding decrease in the power of the county units.

In Georgia, some counties have more strongly centralized school systems than do others, depending upon special laws. In most of the counties, however, all towns with a population above 2,000 are independent, and small localities may be made so by an act of the legislature. In Kentucky, any district having 75 or more school-census children may be independent of the county board of education. In New Mexico, towns or villages with an average daily attendance of 100 or more, and rural districts with an average attendance of 700 or more, are independent. In North Carolina, many "special charter districts" are independent, and many other districts have special local taxing power independent of the county board. In Kentucky, any city or incorporated town which levies school taxes is independent, but may vote to join the county unit. In Virginia, towns of 500 population may be independent. It is evident, therefore, that in these eight states the existence of varying numbers and kinds of independent districts may and probably does tend to weaken the county-unit systems either through permitting the existence of many small and weak units, or by tending to separate out the larger and wealthier districts which should be of assistance in equalizing school burdens and opportunities.

[6]Tink, Edmund Lewis, *Certain Phases of County Educational Organization* with Special Reference to Florida, Teachers College, Columbia University, Contributions to Education, No. 363, Bureau of Publications, New York City, 1929, pp. 17–22.

Administrative Differences

From the standpoint of administration, these eight states also differ. Alabama, Kentucky, Virginia, and North Carolina give the county board of education the duty of electing the county superintendent. In each one of these states he is executive officer of the county board of education. In New Mexico, Tennessee, Florida, and Georgia, he is elected by the people, but only two of these states, Tennessee and Florida, make him executive officer of the board. In all of these states, except Kentucky, North Carolina, and Georgia, the principals and teachers are selected by the county board, usually upon recommendation of the superintendent. In North Carolina, the county superintendent recommends teachers to the local district boards for appointment, while in Kentucky and Georgia the local trustees are authorized to recommend teachers for appointment by the county board.

Kentucky empowers the county boards to lay off lines for the consolidation of school districts, but the actual consolidation of schools must be approved by the people. New Mexico reserves this power for the local districts. In the other six states of the group, the consolidation of schools is a function of the county boards and their superintendents. All eight states give the county boards charge of all school property in districts under their jurisdiction, and empower them to erect and maintain buildings and equip them for school use. Likewise all of these states charge the county boards with the duty of providing instructional equipment and supplies.

Financial Control Varies

In the matter of financial control great variation of practice exists. In Alabama, Lousiana, Maryland, Virginia, and Utah, the county superintendent and the county board prepare and adopt the budget for the county schools. In New Mexico, the local districts certify their budget needs to the county budget commission which draws up a county school budget and must have it approved by the state tax commission before certifying to the county commissioners for levying the tax. In Tennessee, the budget prepared by the superintendent and county board must be approved by the Quarterly County Court.

In Kentucky, the budget as drawn up and approved by the superintendent and county board must be approved also by the Fiscal Court of the county before tax is levied.

In North Carolina, the state requires a basic six-months' school term and permits and encourages an extended term. The county commissioners are required to levy sufficient taxes to meet the necessary expense of the six-months' term, but use their own judgment as to what is necessary. For any extension beyond the basic six-months' term, the people of the county themselves must vote the necessary tax. It is evident, therefore, that in North Carolina the county budget is at the discretion of both the

THE STATE PLANS OF COUNTY UNIT SCHOOL ORGANIZATION

CHARACTERISTICS OF COUNTY UNIT ORGANIZATION AND ADMINISTRATION

	ALA.	FLA.	GA.	KY.	LA.	MD.	N.CAR.	N.MEX.	TENN.	UTAH	VA.	OHIO (Rural)	MONT. Op.	ORE. Op.	TEX. Op.	MINN. Op.
COUNTY BOARD OF EDUCATION																
1. Size of Board	5	3	5	3	5 to 15	3,5 or 6	5-6	4	7	5	4-5	5	7	5	7	5
2. Length of term of members (years)	6	2	4	4	6	6	2,4 or 6	2	7	4	4	4	3	5	4	5
3. Selection of Board																
Elected by people solely as County Board	X	X		X	X					X		X	X 3 ex-of.	X	X	X
Appointed by County or State authority			Grand Jury			Appt. by Governor	*	District Judge	County Court		Co. Trustee Elec. Bd.					
4. Succession in office																
Overlapping terms of members	X			X	X	X	X		X	X		X	X	X	X	X
All terms expiring at same time		X	X					X			X					
5. Territory controlled by County Board																
Entire County except largest cities	X				X	X			X	X					X	X
Many districts independent		X	X	X			X	X			X	X	X	X		
COUNTY SUPERINTENDENT																
1. Selection																
Appointed by County Board	X			X	X	X	X			X	X	X		X	X	X
Elected by people		X	X					X					X			
Appointed by other authority									County Court					Fixed by Board		
2. Length of term	2-4		4	4	4	4	2	2	2	2	4	3	2		2-5	1
3. Relations to County Board																
Ex-officio member of Board								X					X		X	X
Executive officer of Board	X	X		X	X	X			X	X	X	X		X	X	X
Agent of Board			X													
Secretary of Board	X	X	X	X	X	X	X	X	X				X		X	
Treasurer of Board			X		X	X										
FUNCTIONS OF ADMINISTRATION																
County Board a body corporate	X	X	X	X	X	X	X	X	X	X	X	Partly	X	X	?	X
Determine all educational policies	S-B	B	B	S-B	S-B	S-B	Power Divided	B	B	B	B	Power Divided	B	S-B	S-B	B
Divide county into attendance districts	S-B	B	B-L	B	B	S-B	B	B-L	B	B	B	B	S	S-B	S-B	B-L
Consolidate schools	S-B	B	B	S-B-L	B	S-B	B	B-L	B	B	B	B	B Partly	S-B	S-B	B-L
Control transportation of pupils	S-B	B	B	S-B-L	B	S-B	B	B	B	B	B	T	B	S-B	S-B	B
Determine location of schools	S-B	B	B	S-B	B	S-B	S-B	B-L	S-B	B	B	B	T-L-S	S-B	S-B	L
Power of eminent domain	B	B	?	B	Not in Par. Bd.	B	B	B	B	B	B	B	?	B	B	B
Control all school property in County district	B	B	B	B	B	B	B	B	B	B	B	T	T	B	B	B
Provide, maintain, grounds, buildings, physical equip.	S-B	B	B	S-B	B	S-B	B	B	S-B	B	S-B-Com.	T	T	S-B	S-B	B-L
Provide instructional equipment, supplies	S-B	B	B	S-B	B	S-B	B	T	S-B	B	S-B-Com.	T	T	S-B	S-B	B
Have charge of taking school census	S-B	T?	B	S-T	B	S-B	B†	T	B	B	B	S-B	District Clerk	School Clerk	S-B	B
Have charge of enforcing attendance laws	S-B	T?	B	S-B	B	S-B	S-B	S-B	S-B	B	S-B	S-B	B	S	S-B	S-B
Have charge of grading schools, promoting pupils	S-B	B	B	S-B	S-B	S-B	S-B	B	S-B	S-B	S-B	S	L	S-B	S-B	S
Select local trustees and remove for cause	B	S-B	S-B	L	B	S-B	B	L	No Local Trustees	No Local Trustees	B	L	L	L	L	No Local Trustees
Appoint principals, teachers, and fix salaries	S-B	B	T-B	T-S-B	S-B	S-B	S-T	T-S-B	S-B	B	S-B	S-T	T	S-B	S-B	B
Appoint supervisors and fix salaries	S-B	B	T-B	S-B	B	S-B	B	T-S-B	S-B	B	S-B	B	T	S-B	S-B	B
Appoint attendance officers and fix salaries	S-B	T?	B.	S-B	B	S-B	B	B	S-B	B	S-B	S-B	B	S	S-B	B
Appoint janitors, bus drivers, etc. and fix salaries	S-B	B	B	S-B	B	T	B	T	S-B	B	S-B	T	B-T	S-B	S-B	B
Prepare and adopt school budget of County	S-B	B	B	S-B-C	S-B	S-B	B-B-Com-P	‡	S-B-C	S-B	S-B	S-B	T-B	S-B	S-B	B-P
Determine, within legislative limits, school tax rate	B-P or B-L Com.	P-B	P-B	S-B-C	P-B	S-B-Com	Com.	Com.	C	B	B-Com.-P	T	B-Com.	S-B	P-S-B	B
Issue bonds, or submit question of bond issue to people	Com.-P	B in some Counties	B-P	B-P	B-P	B-Leg-P	B-Com-P	B-P	C	B	B-P	T	P-B	S-B	P-S-B	B
Adopt courses of study, under State rules	S-B	B	State Board	State Board	State Board	S-B	State Comm.	State Board	State Comm.	B	State Board	S-B	State Supt.	State Board	S-B	B

LEGEND - B - County Board; S - County Superintendent; T - Local or Sub-District Trustees or Board; P - People of county; L - People of Local District or Sub-District; C - County Court; Com. - County Commissioners; Leg.- Legislature; State Comm. - Special State Commission; State Board - State Board of Education

Division of Functions as given above are based on State Laws, Regulations of State Boards of Education, and Rulings of State Superintendents.

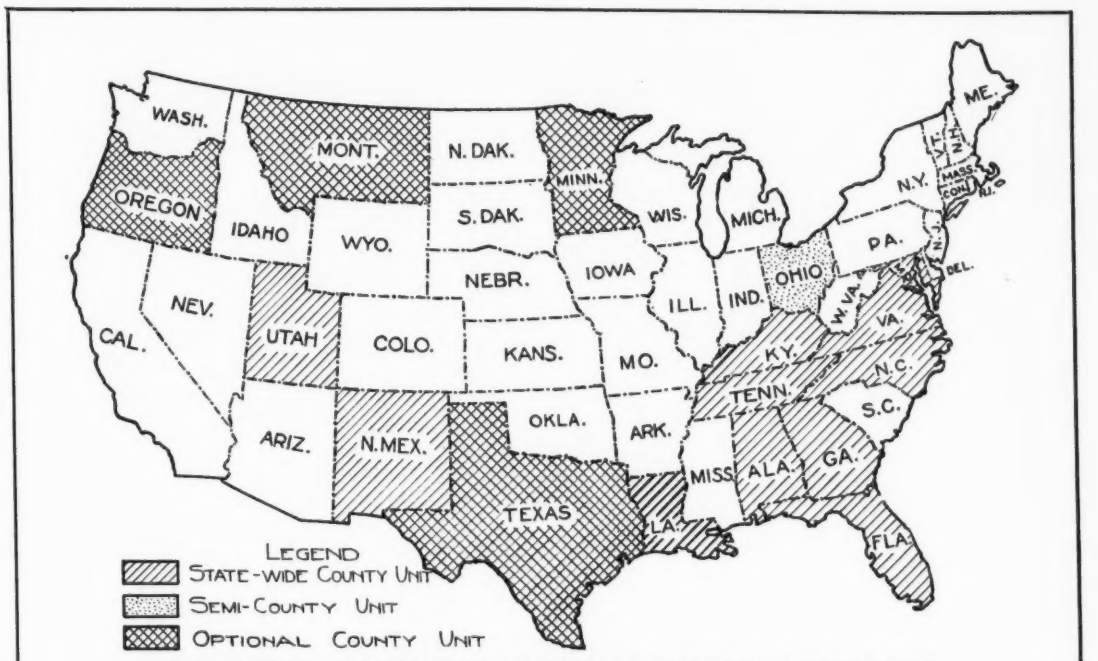
*Nominated in Primaries Elected by General Assembly.

†T-B prepare county budget, County Commissioners approve.

county commissioners and the people themselves.

In Florida and Georgia, the county board has the authority to determine its own budget, and may or may not work through the superintendent in so doing.

In levying taxes, Alabama requires the county commissioners to submit to the people of the county unit or of a local district as the case may be, the question of a special tax levy to supplement state funds. In New Mexico, the county commissioners set the tax rate after the county school budget has been approved by the county budget commissioners. In Tennessee, the county court has authority not only to approve the budget, but also to levy the tax. In Florida, the tax rate is set by the county board to defray the expenses of all public schools under its jurisdiction. In Virginia, the budget as prepared by the county superintendent and county board is presented to the county board of supervisors (county commissioners) who must provide the funds requested, or if they refuse, the county court on proper petition submits the question of the necessary tax to the voters. In the rest of the eight states the tax is levied by the county board. The North Carolina system has already been described.



THE COUNTY ORGANIZATION OF SCHOOLS DESCRIBED GRAPHICALLY

The states which show shading have some form of county-wide school organization. The states in white are organized on the district or township basis and have no county organization beyond the employment of a county superintendent of schools.

Issuance of Bonds

The issuance of bonds for school purposes, in Tennessee, is placed in the hands of the county court. In Florida there is no general provision for the county to issue bonds for school building purposes, but special laws permit this in certain counties. The practice seems to be to pay the cost of school-building construction out of current funds, except in special tax districts, for whom the county board may issue bonds upon vote of the people of the district.

In Maryland, the procedure of issuing bonds is described as follows by State Superintendent Albert S. Cook, in a memorandum to the writer: "The legislature of Maryland must authorize the issue of bonds for any purpose whatsoever in the city of Baltimore, or in the counties of Maryland or subdivisions thereof; if authorized without a referendum, the voters may petition for same."

The Alabama situation is described by Dale S. Young, director of the Division of Research and Information, in a letter to the writer: "The county board of education is not authorized to issue bonds for capital outlay and similar purposes, but it does have authority to issue school warrants as shown in Section 281, page 101 of the 1927 Alabama school code. The section which you quoted with respect to the issuance of bonds refers to bonds which are issued by county boards of revenue or county commissioners against the general funds of the county. When conditions permit, such bonds are issued for school purposes upon the request of the county board of education. Other than making this request the county board of education does not function in the issuance of bonds for school buildings."

In North Carolina, on request of the county board of education, the county commissioners are required to call elections, to determine bond issues, and if approved by the voters, the commissioners issue the bonds. The other states of the group place this authority in the hands of the county board, almost invariably requiring the board first to submit the question to the people of the county.

It is evident from the foregoing that as at present constituted, two states, Louisiana and Utah, have outstandingly strong county unit systems, while Maryland falls below them chiefly in the method of appointment of county board members and in the fact that autonomy in financial affairs is denied to the county boards. The other eight states have weaker county administration partly because they permit many independent local units, sometimes because they fail to assure a strong internal administrative organization, and at times because they fail to permit the county board to control its own finances. Needless to say, these are all elements vital for the development of strong county school systems.

The Optional Plans

It remains necessary to discuss briefly the characteristics of the various optional county-unit systems. In such counties of Montana as may adopt the county-unit organization, all districts with a population of fewer than 1,000 are included, and such districts up to 8,000 population as may vote to join, and any minor portions of a county adjacent to large districts as the county commissioners may include. The county board consists of seven members; of these the chairman of the board of county commissioners, the county treasurer and the county superintendent are ex officio members. In general, the control of school policies still rests with the local subdistricts, the function of the county board being largely that of coördination and approval, not of initiation of school policies. The county superintendent is elected by the people and is not the executive officer of the board, his functions being largely clerical and general supervisory. Up to the present time only one county has adopted the county-unit plan.

In Oregon, where three counties, Crook, Lincoln, and Klamath, have adopted the county-unit organization, cities of 50,000 are excluded, as are likewise city districts having 1,000 or more school-census children; while town school districts having from 500 to 1,000 school-census children, may vote to remain independent. The county board consists of five members elected at large, who employ a county superintendent and make him their executive officer. In coöperation with the county superintendent the board has practically complete control over the policies and work of the county school unit. While the subdistricts elect their own school committee, their function is largely custodial and advisory to the county board.

Little Progress in Optional States

Minnesota in 1927 adopted an optional plan and revised it somewhat in 1929. Thus far only Lake county has adopted it. The county-unit school plan must be adopted by popular vote and is applicable only to counties having fewer than seven organized school districts. The plan provides for a county board of five members who are to elect their own superintendent, but not for a term longer than one year. The superintendent is to be ex officio a member of the board, but without the right to vote, and is the "executive agent" of the board.[7] The Minnesota plan gives the county board rather wide powers, similar to the powers in the stronger county-unit states. It requires the board to submit to vote of the people, however, all proposals to rearrange attendance districts, to consolidate schools, and to construct schools.

Texas provided an optional county-unit plan in 1925, which was applicable to counties having a population of 100,000 or more in the 1920 federal census. This made the plan applicable only to the five most populous counties of the state, none of which have adopted it. The Texas plan is one of the strongest yet proposed. It contains all the essential features of a strong county unit except that district trustees are elected by the district voters, and the people of the county must vote to approve the tax rate first set by the county board after the adoption of the county unit, and must thereafter be consulted by election if the board desires to change the rate. It seems clear, however, that Texas is in transition toward the county-unit plan. The 1929 legislature, as well as previous legislatures, passed a number of acts increasing the powers of county boards in various counties and extending the functions of the superintendents in those counties. It even created in Terrell county a common school district which was to include the entire county.

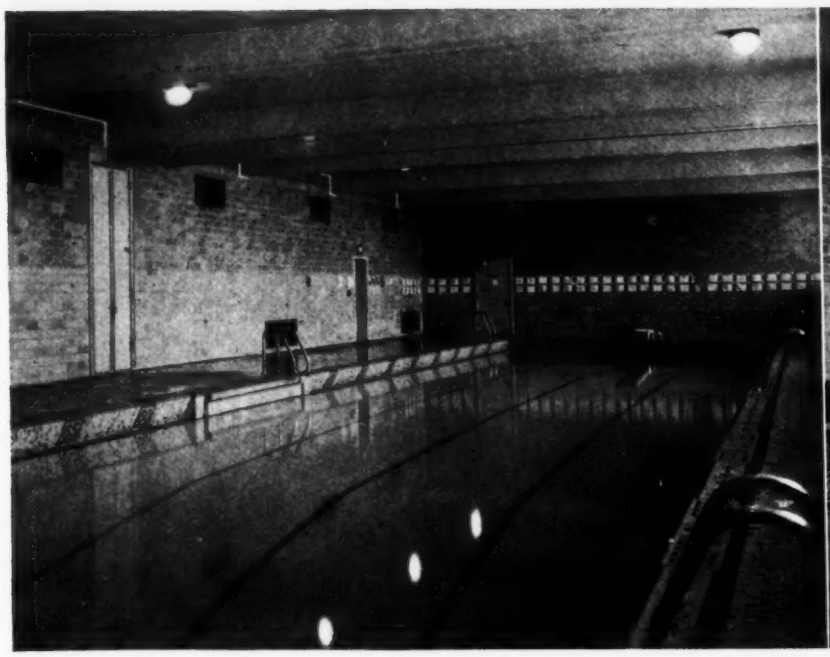
Of the Texas situation, State Superintendent S. M. N. Marrs has written[8] as follows: "The county unit system has not been adopted by any of the counties qualified to administer it. The legislature has in previous years authorized independent school districts to embrace the territory included in a county. I refer you for examples to Eagle Pass independent school district, Eagle Pass, Texas, which embraces within its area Maverick county. This is also true of Sterling county independent school district, Sterling county. There are a few other counties which have been organized as independent school districts by special act of the legislature, but since these acts have been passed some common school districts have been detached from the territory."

Arkansas adopted in 1929 a plan by which county school districts might be created or by which the county might be divided into two or more consolidated districts. This law, however,

[7]Statement by Dr. M. L. Jacobson, Director of Rural Education.

[8]Letter to the author.

(Concluded on Page 112)



UNDIVIDED POOL IN A DETROIT SCHOOL WITH THE WATER GATES AND THE FOLDING PARTITION FOLDED BACK INTO RECESSES PROVIDED FOR THAT PURPOSE

ONE OF THE GATES IN PLACE AND THE FOLDING PARTITION SHOVED FORWARD. ONE MAN CAN HANDLE BOTH THE GATES AND THE PARTITION WITHOUT GETTING INTO THE POOL

Making Effective Use of the Swimming Pool

Charles L. Spain, Ph.D., Associate Supt. of Schools, Detroit, Mich.

In the construction of high-school and junior-high-school buildings the trend today is strongly toward swimming pools for both boys and girls. One large pool for general use has its advantages, especially as a proper setting for aquatic contests and games, but obviously, as it cannot be used simultaneously by boys and girls, it loses some of its value from the point of view of administration.

If a plan can be evolved which will secure the advantages of a large pool for contest and games and at the same time provide a divided pool for class purposes, there will be a distinct gain in efficiency of use.

Detroit has been trying to develop a satisfactory pool of this type, and, after overcoming some obstacles which arose in connection with the first installation, has now developed a type of gate, and sliding partition which seems satisfactory.

Detroit high-school pools are 25 by 90 ft., and those for junior high schools are 20 by 90 ft. The original installation was designed by the late Loren M. Post, director of health education in the Detroit schools. It consisted of two gates, under water, so hung that they met in the center of the pool, and formed a tight partition between the two parts of the pool. These gates when not in use folded back into recesses on either side of the pool and remained flush with the sides of the pool. The upper gate which served as a partition between the two halves of the pool room was a Wilson folding door and when opened rested upon the lower gate in the pool and formed a closed partition extending from the top of the pool gate to a beam in the ceiling of the pool room.

In this first construction, cypress wood was used for the underwater gate, while the upper gate or partition was a wooden folding door. Some trouble was encountered because the moisture caused the cypress gate to swell and shear the hinge bolts of the gate. The wood in the upper gate also was affected by the moisture of the pool and by water splashed upon it by the bathers.

In the light of this experience, it was found desirable in later installations to eliminate all wood and use an underwater gate made of cast-aluminum, structural shapes strongly braced, and faced with rolled aluminum. The upper gate is also composed entirely of aluminum, and to relieve the pressure on the lower gate the upper one is suspended from a beam in the ceiling. The lower gate is supported when in use by aluminum castings on the floor of the pool. The lower gates are opened and closed by a person in the water. The upper gate or partition, operated by a winch and cable, moves into place automatically.

Since the difficulties attendant upon the first installation have been overcome, the divided pools have been found to work efficiently. Administratively they are a success, for the gates permit the constant use of both halves of the pool for class purposes, while the advantage of a large body of water for other purposes is retained.

THE POOL FULLY DIVIDED BY THE GATES AND THE FOLDING PARTITION. SEPARATE CLASSES OF BOYS AND GIRLS CAN USE THE HALF POOLS.

SCHOOL NOT LIABLE FOR PERSONAL INJURY

The courts of California have held in recent years that where school authorities have been derelict in the matter of safety they may be held responsible for injury cases. A case has arisen now which places a new aspect upon the question.

A pupil attending a union high school was injured because of the negligent manner in which an experiment was conducted by an instructor in physics. The case was submitted to the attorney general of the state for an opinion.

The attorney general here held that the claim against the school district for damages could not be sustained. Where a school system maintains faulty apparatus or conditions, the same may be held liable. The attorney general added:

"In the present case the injury was not caused because the school district maintained any property in any dangerous or defective condition but rather because the professor was guilty of gross negligence in the use of property, which, if otherwise handled in a proper manner, would have caused no injury.

What the Supervisor Looks for in Classroom Supervision

John A. Nietz, University of Pittsburgh

Many teachers feel that the visits of a superior in the capacity of a supervisor, whether he be a principal, a superintendent, or a special supervisor, result in little more than so much timeserving in order to draw a handsome salary. Too often, these teachers feel that nothing in particular is looked for in the classroom procedure, and that no helpful suggestions are offered after the supervisor's visit. The practices of much supervisory work naturally lead many teachers to the above conclusions.

Types of Supervision

At least three types of supervisory practice exist, two of which are despised by teachers. The one consists largely of inspectorial visits. The supervisor visits a classroom, takes a seat, stays fifteen or twenty minutes, and then walks out without conferring with the teacher personally or in any way letting her know what was thought of her work. Under such practice, the teacher never knows what the supervisor looks for or in what way so-called supervision improves teaching.

The second type is nearly opposite in nature. In this type the supervisor takes his work very seriously, in fact, too seriously. He feels that he must always point out some things that need improvement, even though he must split hairs to do so. Too often, such supervisors pay more attention to *trivial* matters than to those of greater concern. This may be termed "snoopervision."

Fortunately, there exists also a third type. This may be termed constructive supervision. Here the supervisor has some significant things in mind for which he looks. These things are not petty and trivial, but vital and important in teaching procedure. Then, before leaving he will confer with the teacher about her procedure, and if necessary, will suggest what improvements may be made.

What the Supervisor Looks For

But what does the constructive supervisor look for? To list all the things which may concern the teaching procedure would include a large number of items. It is the opinion of the writer that an attempt to look for too large a number of things during a classroom visit merely confuses the supervisor by directing his attention away from the more important things. Again, were he to rate the teacher on so many items and hand her the rating, confusion or embarrassment or both would result. The writer's view is that it is better to look for fewer but more significant things. This view is based upon the experience gathered while doing consultative work, visiting hundreds of teachers, during the past four years.

The following list of *ten* things which the writer uses with profit is the result of study, of the use of check lists, and of experience. Many books and articles on supervision were read. Likewise, books and articles on methods and teaching techniques were studied. Then, more than a hundred principals and teachers were asked to list the most significant items to be looked for in a classroom visitation. Following these steps the writer made a tentative list. This list was submitted to many principals and teachers for criticism. They were told first to scratch off any items which seemed insignificant and, next, to add any items which to them seemed significant, but were not included. The resulting list is, however, not based upon mere frequency of mention, but rather it is a list dictated by supervisory experience and then checked with accepted principles of educational psychology and modern teaching techniques. No item is included which cannot be defended

The present paper tells most interestingly what the constructive classroom supervisor shall look for and what principles he shall apply in making visits to teachers most fruitful in the shape of better teaching procedure and more effective classroom work.—*The Editor.*

in the light of these principles. It will be noted that trivial matters are not included. The items confine themselves to teaching procedures and techniques, rather than to such matters as the voice, appearance, etc., of the teacher. The list follows:

Effective Learning and Objectives

1. *The learning situation.* What is the nature of the learning situation? Is the control technique conducive to effective learning? Do teachers and pupils utilize all the time economically? Are the physical matters, as light, heat, ventilation, etc., attended to so as to be conducive to good work?

The idea is that a proper learning situation must exist before effective learning can take place. This is not necessarily motivation, but rather involves a situation which will make motivation more easily possible.

2. *Recognition of objectives.* Is it evident that the teacher and pupils recognize the objectives to be attained? Are these objectives in harmony with the subject taught?

First, it is highly important that the teacher be cognizant of the immediate goals to be achieved. If the teacher is not conscious of these, it will be difficult for her to check the validity of her activities or procedures. She should know not only that the machinery is moving, but also that it is moving in the right direction. This should be known by pupil as well as by teacher. It is a psychological principle that if the pupil knows the goals to be attained, greater motivation will result and, consequently, more effective learning.

Next, the immediate goals must be checked with the objectives to be attained in the subject as a whole. Too often one must stretch his imagination to a breaking point to see any connection between the activities or procedures of a particular day's work and the ultimate objective of the course. For example, let us visit a French class. French is a language art, the primary objective being to develop an *ability to receive or convey* thought or feeling (in French) without focal consciousness of the elements of discourse. Suppose the teacher spends days and days on declensions and conjugations. Just to what extent does a mastery of these harmonize with the ultimate objectives of a course in French?

Keeping on the Track

3. *Fulfillment of objectives.* Is it evident that the activities being carried on are fulfilling the objectives set up? Are the pupils aware of this?

It is one thing to recognize the objectives; it is another thing to fulfill them. There must be a constant keeping-on-the-track. Teachers often are glibly familiar with the objectives to be attained, but fail to test their results in relation to these objectives. For example, teachers of literature contend that the primary objectives to be attained are the love and appreciation of good reading. Yet when a supervisor asks a teacher of *Ivanhoe,* who is teaching it by the dissecting process, how her procedure contributes to a love for such reading, she looks amazed. The fact is, that most teachers of literature fail utterly to lead their pupils to a love of reading good books. Supervisors must help teachers to harmonize the daily classroom activities with the fulfillment of the objectives of the course being taught.

4. *Recognition of individual differences.* Are the materials or activities organized in terms of the child, recognizing individual differences in interests, abilities, and needs?

A realization that individual differences exist is so common that further mention seems trite. However, knowing that the differences exist is one thing, but organizing the teaching materials and activities so as to provide for the differing interests, abilities, and needs, is another thing. A good supervisor should note to what extent the teacher provides differentiated activities and materials.

5. *Pretesting.* What evidences exist that pretests have been given and use made of them?

Pretesting serves two important purposes: diagnosis and motivation. Diagnosis is the fundamental basis of providing for individual abilities, needs, and interests. Motivation facilitates the learning process. The supervisor should note to what extent these purposes are being fulfilled in the teaching technique.

Learning Difficulties and Progress

6. *Discovery of learning difficulties.* What is being done to discover learning difficulties and then to eliminate them?

The statistics of pupil retardation are appalling. Most retardation is the result of failure to pass certain subjects, especially the fundamental subjects. But what causes pupil failure? There are many causes. However, there is one cause which seems to stand out above all others, namely, the failure on the part of the teacher to discover pupil learning difficulties. The good teacher should develop techniques of discovering learning difficulties, and then she should proceed to eliminate them. These may consist of vocabulary difficulties, a lack of experiential background, a poor reading adaptation, deficiency of certain character traits, or specific difficulties inherent in the work being done. The masterful teacher discovers these difficulties and then readapts her work accordingly.

7. *Checking pupil progress.* What checks are made to determine pupil progress? Does the teacher reteach that which is not mastered?

The common practice is to test only when grade-giving time approaches. Such practice is not commendable psychologically or pedagogically. The chief purpose of testing in school should be the same as in the field of medicine, namely, to determine progress or improvement, and to indicate the next steps to be taken. Diagnostic analyses of the results of tests are essential in order to adapt the teaching to individual differences. Not only do progress tests assist the teacher in adapting her work and procedures, but they help the pupil to recognize his own shortcomings. In other words, frequent progress tests enable the pupils to make self-diagnoses.

Learning to Learn

8. *Directed learning.* In what way does the teacher direct the learning of the pupils? Are the pupils grouped so as to make the direction of learning more effective?

Few teachers are really effective in directing the learning of pupils. When a supervisor talks to them about it, they seem to intimate that it is a sort of magic process. They need to be shown that the direction of study involves merely the application of good pedagogical sense. As the architect's blue print (and the written specifications which go with it) is the guide to the workmen in the construction of a building, so a guide sheet, a contract, or something of such nature, needs to be placed in the hands of the pupils as the first essential in the

direction of learning. This means that the pupils must know *what* is to be done.

Next, the pupils must be given direction *how* the work is to be done. So when the guide sheet is given the pupils, the teacher should explain very clearly how the work is to be done. Two extremes in practice prevail regarding this. Some teachers do too much for the pupils, while others do too little. The secret of good, directed learning is to know just how much, as well as how little, is to be done for the pupils. The skill of the artist teacher is like that of a skillful baker who knows just when the cake is baked. If the cake is taken out of the oven too soon, it will be a "sinker," while if it is left in too long it will be burnt. As the baker does not care to produce either "sinkers" or charcoal, so the good teacher does not care to develop either "lost sheep" or helpless mental dependents.

After the pupil has been directed in regard to what to learn and how to learn it, the third task of the teacher is to see that the pupils proceed to learn. The old-type daily recitation will be replaced by individualized study on the part of the pupils, and individualized help and direction on the part of the teacher. The teacher, as she goes from pupil to pupil, will sense the individual difficulties, interests, and needs, and will proceed to meet them wisely.

Learning by Doing

9. *Pupil reactions.* In what ways are the pupils given opportunities for reaction? Do they ask questions? Who answers them? Is independence and creativeness encouraged? Are the pupils given opportunities to express themselves? What form does the self-expression take?

One of the laws of learning is that the learner be given opportunity to react to what is being learned. In fact, it is doubtful whether anything can be really learned or mastered until the learner reacts to what is being learned. This reaction must be something more than merely passing a test on the material covered. The pupil must deal with the facts or materials in his own way, thus making them a part of himself. In the content subjects, this may consist of having the pupil organize the facts he has learned regarding a unit, and then either give a floor-talk on them before his class, or writing a composition about them. In either case, the pupil's understanding of the unit will be clarified, and also he will develop a power of oral or written expression. In the language-art subjects, the pupil must utilize the words, etc., which he has learned by using them in talking and writing. He learns to speak French by speaking French, and so on. In other words, the pupil learns to do by doing.

10. *Pupil attitudes.* What attitudes do the pupils manifest? Do they take their work seriously? What are their attitudes toward the teacher, the other pupils, and the school?

The importance of developing right pupil attitudes need not be argued here, for the attention being given to character education, etc., indicates that educators are recognizing that the educational products shall consist of more than merely acquiring knowledges and skills. However, in speaking of attitudes, we must be careful lest we think of them too subjectively. In order to make the point clear, let us define an *attitude as a typical reaction to a typical situation.* This resolves pupil attitudes to pupil behavior, not in the old disciplinary sense, but as to how the pupil acts or behaves typically when under no restraint. For example, does the pupil study because he wants to, or because the teacher compels him to? Does he act respectful to the teacher because he feels he must in order to pass, or does he really respect her? Is he in school because the law compels him to be there, or does he feel that the school is a social institution to assist him in making life's adjustments?

The Ten Principles in Brief

Summary. During classroom supervision it is better for the supervisor to look only for a few things, but let them be matters of importance in classroom procedure. The practice of supervisors to look for petty things to criticise has led teachers to resent supervision. The ten matters which modern principles of educational psychology and supervision seem to warrant are as follows: (1) Is the class control, management, etc., conducive to good learning? (2) Do teacher and pupil recognize the objectives to be attained? (3) Do the pupil activities appear to be fulfilling the objectives? (4) Are the materials and activities organized to meet the interests, needs, and abilities of the children? (5) Have pretests been given and is use made of them? (6) What is done to discover pupil learning difficulties? (7) Are checks made to determine pupil progress? (8) How is pupil learning directed? (9) Are the pupils given proper opportunities for reaction? (10) What is the nature of the attitudes manifested by the pupils?

Begin Cleveland Board-of-Education Building Construction

Ground was broken on July 1 for the new board-of-education headquarters building in Cleveland, Ohio. It is expected that the structure will be completed by November 1, 1931. The new building is to occupy a prominent corner of Cleveland's Mall, which has been under construction for a decade and which is to be completed for a monster civic celebration in 1932. The Mall already contains a magnificent municipal auditorium, a city hall, a public library, the post office, and other public buildings. The board-of-education building, which is monumental in design, is to be fully utilitarian in plan and equipment.

The building, which will cost $2,000,000, has been designed to permit of future expansion as the needs of the Cleveland school system grow. A garage accommodating 118 cars is included in the plan.

The Mall entrance on the west side will be a formal lobby with a ceiling two stories in height, a balcony circling the second floor. A broad approach of 125 feet will front the east side of the building. This landscaped approach will cover the garage.

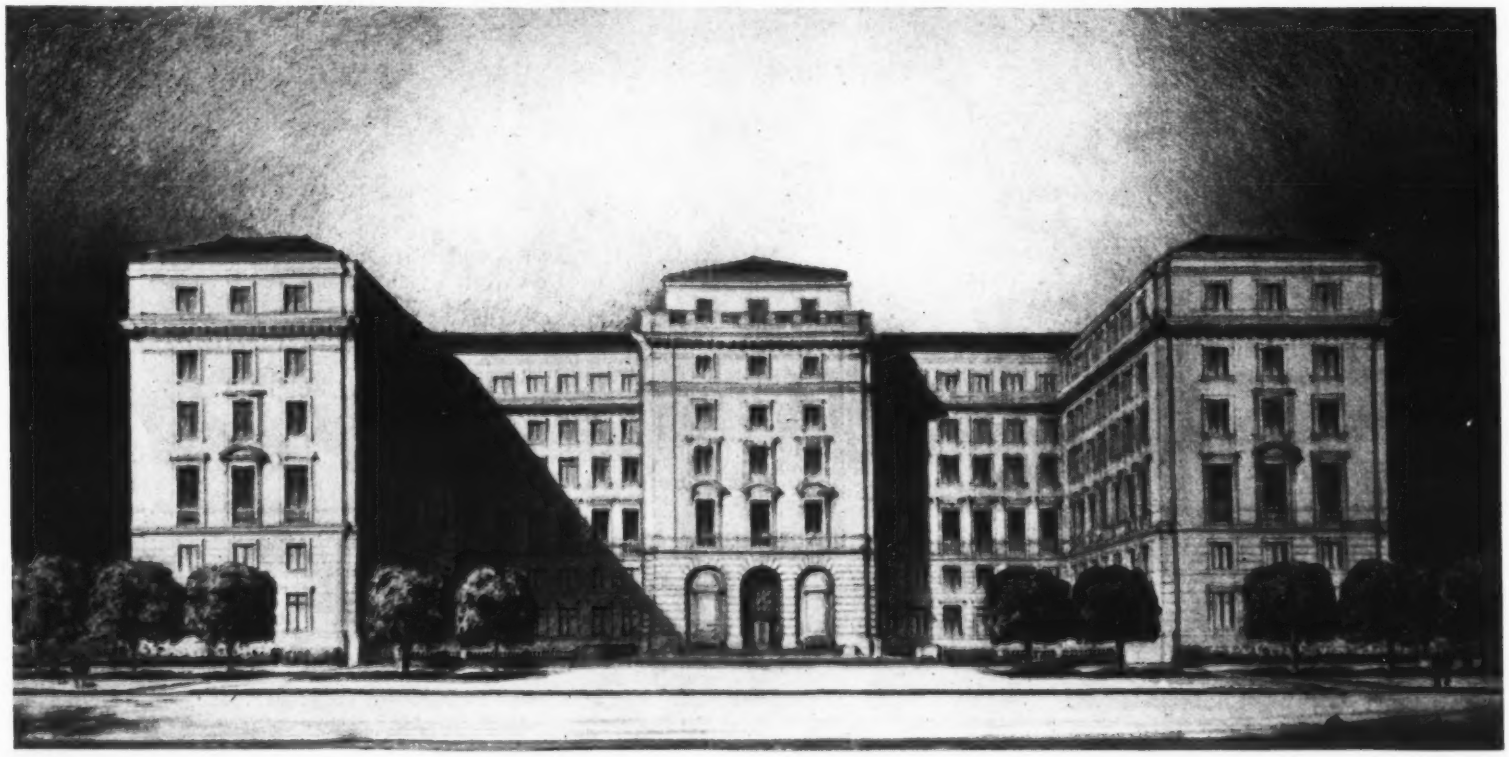
Four thousand volumes may be accommodated in the library with room for 5,000 additional in the "stacks." A memorial fireplace made from bricks of the old Rockwell school, used as board headquarters for a number of years, will form one end of the library where readers may browse in truly bookish atmosphere.

A number of assembly rooms, meeting rooms, and conference rooms will be scattered through the building that teachers, as well as headquarters' staff members, may use. One large assembly room will contain a platform with footlights, motion-picture booth, and other features for lectures, and visual demonstrations.

The board room will be equipped with stationary seats for the public, a large oak table around which board members will pass on school business.

The sixth floor will be left unfinished to allow for future expansion, which is also the reason for the many assembly and conference rooms allowed for in other parts of the structure.

It is expected that the new building will greatly facilitate the administration of the schools.



NEW BOARD OF EDUCATION BUILDING, CLEVELAND ,OHIO
Walker & Weeks, Architects, Cleveland, Ohio

Some Problems in Computing Comparable Unit School Cost

Frederick D. Chambers, C.P.A., Auditor of the Board of Education, New York, N.Y.

During the past five decades, state and city school systems in the United States have become more costly, not only in the total volume of expenditures, but also in unit costs. This has been due, first, to the increase in population; second, to the extension of the required years of instruction, and the compulsory attendance of children; third, to the constantly expanding ideal of what constitutes an indispensable educational opportunity for both normal and atypical children; fourth, to the erection of better types of school buildings with more extensive equipment and facilities; and fifth to the increased costs of salaries, supplies, materials, etc., which are due to economic conditions, and for which no additional instructional services or physical facilities have been obtained.

The General Problem

Along with the growth in size and complexity of school systems, there has been an elaboration of financial reports of schools, particularly in the direction of establishing unit costs. Probably most school systems have developed a method of computing and a form of stating such costs, which are satisfactory for local needs.

But, of late years, it has become the conviction of many interested factors that a more helpful situation would be created if unit costs could be so presented by all school officers as to permit the comparison of similar fundamental cost elements in various communities. At present, the uniform practice of combining facts which are not of equal weight nor consistency, produce unit costs which are merely mystifying and unreliable for purposes of general comparison.

It is evident that, to get a comparable basis, we need far more than the arithmetical unit derived by dividing the total cost by the factor of attendance, or by some other appropriate factor. It is certain that unit costs will vary, and that we cannot know clearly why unless we seek out and record the factors which vary, for one reason or another in the several communities, and which are the causes of unequal unit costs.

In this connection, it should be remembered that the adequacy of educational results cannot be measured by unit cost figures. After all, education is mostly an intangible thing, certain aspects of which educational-research people are trying to evaluate by tests and gauges, but not without wide differences of opinion as to the real meaning of results.

School officials may be satisfied with their unit costs as compared with those of another community, yet the schools may have fallen short in the opportunities afforded to pupils, and in the efforts made to guarantee that the children receive maximum benefits from what is offered.

Certainly in the matter of education, school officials are not in competition with each other in the commercial sense. They are not trying to produce a salable article at the lowest cost in order to capture the largest market. On the contrary, they are engaged in trying to provide the most superior quality of education, knowing that the people demand it and will pay all it costs. When results are obtained high unit costs may be a matter to boast about, rather than apologize for.

Correlating Factors in Unit Costs

It is the problem of the Committee on Unit Cost Accounting of the N.A.P.S.B.O., to outline certain correlating factors which are necessary for an understanding of the variations in unit costs as between communities. For example, it is thought that no understandable comparison can be made of unit costs as between any two systems, unless, in addition to the arithmetical unit, there is a mutual knowledge of the following important factors:

1. Whether (*a*) salaries are controlled by the board of education, or are fixed by statute; (*b*) whether the salary schedule is graded as to activity or by length of service, or both; and (*c*) what is the *average* salary paid in each activity.
2. The average pupil-load per teacher for each activity, also the percentage of oversize classes
3. The length of the school year or annual sessions in each activity.
4. The number of hours per day each activity is conducted.

In all of the above items separate information should be available for each group of atypical children.

5. Whether textbooks and supplies are furnished free, and enter into unit costs or not.
6. To what extent instructional equipment is capitalized, and excluded from unit costs.
7. What are the costs of labor and material in the two localities.
8. Whether, in general, the upkeep of buildings is up-to-date, or is lagging behind.
9. To what extent alterations and betterments are capitalized.
10. The requirements of the building, sanitary, and fire codes.
11. The duration of the heating season.
12. The average price of fuel.
13. The method of employing and paying custodians or janitors.
14. Whether water is purchased, or is furnished free.
15. The extent to which janitorial equipment is capitalized.
16. Whether the board of education has independent and adequate taxing powers for recurring annual expenditures, or whether its policies are influenced by sharing in the taxing power of the whole community, with some statutory or constitutional limit.
17. Whether the board of education pays all expenses of education, or whether some other local agency pays part thereof.

This paper, which constituted an important portion of the report of the Committee on Unit Cost Accounting of the National Association of Public-School Business Officials at the New Orleans convention, May 22, 1930, represents the mature views and conclusions of the auditor of the largest city school system in the United States. It is far more than a discussion of accounting problems and procedures, because it involves the consideration of many basic principles in school administration and public-school policy. School-board members and superintendents will appreciate the writer's keen insight into the complexity and variety of school administration as well as school accounting practices. — Editor.

The Fundamental Cost Divisions

The foregoing points will specifically bring out the connection with each fundamental group of costs. Bulletin No. 24, (1928) of the U. S. Office of Education, divides all school costs into the following nine fundamental divisions:

1. Cost of Instruction.
2. Cost of Coördinate Activities.
3. Cost of Auxiliary Agencies.
4. Cost of Physical Operation of School Plant.
5. Cost of Physical Maintenance of School Plant.
6. Cost of Capital Outlays.
7. Cost of Debt Service.
8. Cost of Fixed Charges.
9. Cost of Administration (General Control).

Upon a widespread understanding and recognition of the classification of these cost facts as basic and our faithful recording of such facts in a uniform manner depends the degree of success school accountants achieve in the common aim of developing comparable unit school costs. The writer is constrained to state that he believes that this objective can never be completely achieved, because statutory, financial, physical, climatic, and other conditions vary so greatly throughout the vast extent of the United States.

Another point to be considered is that public accounting and statistical figures, to be of value in shaping school policies, should have an immediate and outstanding meaning. Too often they come to be of the "believe-it-or-not" type, or as useless for current purposes as an epitaph on a monument in memory of the dead.

In 1906, Mr. Henry R. M. Cook, then auditor of the board of education in New York City, said: "It is quite possible to enter so largely into the statistical field as almost to render the production of statistics superior to or more important than the conditions or facts which give rise to them."

Along the same lines, Bulletin No. 24 referred to above contains the following remark: "No item of information should be collected which is not used. The recording of information is not an end in itself. Unless the information recorded functions in pertinent research and better school practice, its collection is wasted effort." (P. 2.)

Utility the Basic Guide

Practical utility, therefore, should be the accepted guide to determine the development of comparable unit school costs. Too minute and exhaustive efforts will delay, if not wholly defeat, the purpose.

In the following paragraphs the scope of the nine basic costs is outlined; a notation of some important points which must be considered is added, and a suggestion is made for extracting some unit costs, which, it is thought, will have a definite and significant value for general comparison. The fact should be kept in mind that the material following is intended to relate only to some of the connecting or correlating detail and factors which must be known in order to bridge the apparent gaps between unit costs in various parts of the country. The intent is not to be dogmatic, but only to stimulate discussion, agreement, and accomplishment on the part of school accountants and school executives generally.

1. Cost of Instruction — Salaries

Definition. Bulletin No. 24 defines the "Cost of Instruction — Salaries" to be the cost of the salaries of principals, assistant principals, supervisors, teachers, school clerks, and all other persons directly engaged in connection with the instructional process in the purely instructional activities conducted during the day, the evening, and the summer, including as separate items the schools or classes for kindergartens and for physically and mentally handicapped children (itemized).

Point 1. The single factor used to determine unit costs of instructional salaries, up to about 25 years ago, was the average daily attendance, but the result was unsatisfactory for other than local comparisons, one year with another. During recent years attempts have been made to agree upon some factor which would reduce to a common denominator the varying lengths of school years, varying lengths of school days, or sessions, etc. A number of cities now compute unit costs, using the factor of aggregate hours of attendance. These have the defect of varying on account of conditions of the weather, with the prevalence of epidemic diseases, and with the days upon which religious holidays fall. Nevertheless, attendance represents the solid base upon which instructional effort has been expended, and, therefore, is generally preferred to register in computing unit costs. Register, however, is the factor to be used in budgetmaking.

Point 2. It is obvious that, in a community which has a teachers' salary schedule containing

the feature of annual increments based upon years of service, a salary unit cost computed school by school shows no significant fact usable administratively. On the other hand, comparisons of salary unit costs by activity, such as day elementary schools, day junior high schools, day high schools, etc., are of value because they reveal the unit costs of each of these types of activities.

Point 3. The pupil load per teacher varies greatly throughout the country, and it is evident that this affects salary unit costs to a great degree.

Point 4. Since one of the measures of the efficiency of a school system is the attention which it gives to physically and mentally handicapped children, and since the registers of such classes are much smaller than the register in the regular grades, Bulletin No. 24 contemplates that salary unit costs be computed and shown separately for such groups.

Point 5. Undoubtedly the liberality of the educational opportunity offered, as reflected in modernized courses of study, and the degree of retardation, or number of "repeaters," is to be taken into consideration in this outline.

Suggestion: In connection with the bare unit cost of any instructional activity, there should be shown, (1) the average salary or compensation of the group, and (2) the average pupil load per teacher.

2. Cost of Instruction — Supplies

Definition. Bulletin No. 24 defines "Cost of Instruction — Supplies" as the cost of supplies consumed in the instructional process, and excludes the cost of articles which are supposed to last year after year with reasonable use. The cost of textbooks is included, as is the cost of school-library books.

Point 1. Since cost of instructional supplies is the other major element in the total "Cost of Instruction," it is possible and appropriate to compute unit costs by activities, using the factors of average daily attendance or aggregate hourly attendance, or both, in the same manner and with the same weight as these factors are applied to the cost of instructional salaries.

Point 2. As in the case of salaries, the liberality of the course of study and the degree of retardation affects the unit costs of supplies, but too obscurely to be discussed here.

Point 3. It is necessary to know whether textbooks and supplies are paid by pupils, or whether they are furnished free and enter into unit costs.

Point 4. It is essential to know to what extent educational equipment is capitalized and excluded from unit costs. The writer is a conservative in this matter, and the point is more fully discussed under "Cost of School Plants."

Point 5. As in the case of instructional salaries, supplies and unit costs should be developed for each of the group of physically and mentally handicapped children.

Point 6. What constitutes "Cost of Supplies" for any given period? (1) Is it the cost of all supplies received and paid for, whether actually consumed or resting in the storerooms of the schools or in a central depository, (2) the cost of all supplies delivered to the schools whether consumed or not, or (3) the cost of only such supplies as were actually consumed during the period? It is apparent that the method of handling this matter vitally affects the unit cost reported.

Point 7. In what way and to what extent are inventories taken, especially in the school buildings? How are they valued, and how accurate are they?

Suggestion: (1) An attempt should be made to ascertain facts with regard to the general practice of school boards and the reasons therefor, and (2) to consider the feasibility of attempting to secure a uniform method. This is probably the most intricate problem in comparable unit cost reporting.

3. Cost of Coordinate Activities

Definition. Bulletin No. 24 defines "Cost of Coördinate Activities" to be the cost of salaries and the expenses of all *fieldworkers* in the compulsory-attendance, medical-inspection, dental-inspection, and nurse services.

Point 1. Included in this group should also be the fieldworkers in vocational guidance, the visiting teachers (for problem cases), the persons who issue working papers, and the census enumerators.

Point 2. Is the cost of salaries of doctors, dentists, and nurses paid by the board of education? Or is it paid by the department of health as in New York City and certain other cities?

ROY B. JULIAN
Superintendent-Elect,
Valparaiso, Indiana

Mr. Julian goes from Bedford, Indiana, where he served as high-school principal for four years, to Valparaiso, to succeed C. W. Boucher. He began his professional career as a rural-school teacher in 1912. For six years he was the superintendent of the Southport, Indiana, schools before assuming the Bedford position. He is a graduate of the Indiana State Teachers' College, Indiana University, and Butler College.

Point 3. If the persons employed in these activities are paid on a salary schedule having the features of annual increments, based upon years of service, unit costs may vary disproportionately to the volume of service.

Point 4. Is the staff used for census enumeration and issuing working permits also used for enforcing the compulsory-attendance laws? The same staff is used in New York City and other cities.

Point 5. Are the coördinate activities organized on the basis of some ratio of pupils on register and the number of workers required to cover the field, or is the volume of such activities controlled largely by financial limitations, or other conditions?

Point 6. Should the number of individual cases disposed of be the factor used in computing unit costs, or should the factor be the aggregate number of investigations or inspections, regardless of the number of "repeaters?" The latter factor would seem to be the more stable base, but there are administrative reasons for using the number of *cases disposed of* as the basis for rating the accomplishments of the fieldworkers; and if unit costs are computed for each *hundred* cases disposed of, it would seem that a satisfactory comparable unit cost would be shown.

Suggestion: (1) The number of cases disposed of grouped by hundreds should be the factor used in computing comparable unit costs. (2) The average salary or compensation of each group should be shown, and (3) the ratio between the number of fieldworkers and the aggregate number of pupils on register should be indicated.

4. Cost of Auxiliary Agencies

Definition. Bulletin No. 24 defines "Cost of Auxiliary Agencies" to be costs of salaries, expenses, etc., (*a*) of public (not school) libraries under the control of boards of education; (*b*) of transportation of pupils; (*c*) of free lunches for the undernourished, and deficits incurred by the usual school-lunch services; (*d*) of playgrounds, recreation centers, athletics, baths, school gardens, school-savings banks, adult lectures, and other activities not included as a part of the regular curriculum.

Point 1. The opportunities and the needs, as well as the physical facilities available, for conducting such activities as are contained within this group, differ so widely throughout the country, and, indeed, within school systems themselves, that much more information than is now available is needed before the matter of comparable unit costs can be intelligently considered.

Point 2. An important feature in all of these activities is the local need of granting relatively larger financial support to some than to others. For example, the board of education in New York City has been compelled, by considerations of child safety, to make increasing financial provision, year after year, for supervised playground activities in all space that is or can be made available. On the other hand, adult lectures, which, at one time, were an important feature of the auxiliary activities, have been abandoned because of the lack of public interest.

Suggestion: It is suggested that, (1) an attempt be made to assemble information with regard to each of the auxiliary agencies, with a view to deciding whether comparable facts can be best stated in statistical unit costs, or in narrative form.

5. Cost of Physical Operation of School Plant

Definition. Bulletin No. 24 defines the cost of "Physical Operation of School Plant" as the cost of wages of engineers, janitors, etc.; the cost of engineers' and janitors' supplies; fuel, light, water, and other expenses of keeping the buildings open and ready for use. Certain articles of janitorial equipment (not replacements) for old buildings are considered as "Capital Outlay."

Point 1. The conservative view of the writer with regard to what constitutes "Capital Outlay" is referred to under that heading.

Point 2. As to fuel (*a*) what is the length of the heating season? (*b*) What is the average price per ton (or other measure) for fuel?

Point 3. As in the case of the maintenance cost, it is not believed that the number of pupils in attendance furnishes the best factor for the development of a scientific and comparable unit fuel cost, especially where the complication of evening attendance enters, or where there is simultaneous use by several activities, or where overcrowding exists. It is evident that the volume of attendance, even if extended into the evening, bears no direct relationship to the quantity of fuel used. As a matter of fact, probably the largest hourly consumption of fuel occurs in getting buildings warm in the morning, and before any pupils are in attendance, and that the heat generated during the day lasts well into the evening.

Point 4. Differences in climatic conditions practically eliminate the possibility of developing comparable unit costs of heating and ventilating school buildings, located, as they are, in all sections of our widespread land. A zoning classification based on outdoor temperature averages of localities might overcome some of the difficulties.

Point 5. Valuable unit costs for general local use, and particularly for testing the efficiency of engineers and janitors, can be extracted by comparing the quantity of fuel consumed yearly in each building, using as factors, (*a*) the area of floor surface, expressed in thousands of square feet or quarter fractions thereof, or (*b*) by using the more compact factor of classroom units. The fuel cost can also be divided by buildings grouped according to the nature of the heating and ventilating plant, as high pressure, low pressure, hot-air furnaces, etc. Further valuable information may be obtained by comparing coal-burning plants on the basis of the cost of sizes of coal used, e.g., the larger sizes compared with No. 1 buckwheat, semi-bituminous, etc.

Point 6. In determining engineering and janitorial-service costs, such questions as the following arise: (*a*) Are all such employees hired and paid by the board of education? (*b*) Is a rate fixed for each building on the basis of floor and paved area, types of heating and ventilating apparatus, and similar factors, the custodian receiving the whole sum fixed and paying his own help? (*c*) Is the cleaning done by contract at public letting for all schools or groups of schools? (*d*) Is any extra allowance made in buildings of the high-school and vocational-school types, or for sessions extending beyond the usual hour of closing, as in double session schools? How do the costs of the various plans compare?

Point 7. As to janitorial supplies, what is the policy with regard to providing pupils with towels, soap, etc.?

Point 8. Is the cost of water, gas, electricity, and electric lamps paid by the board of education? Or is the cost of any of these services furnished by a municipal department?

Point 9. As in the case of the fuel cost, and for some of the reasons mentioned under Point 3, it is believed that the most useful information is not secured, even for local purposes, by computing a unit cost of engineering and janitorial service with attendance as the unit factor, but rather by using some of the factors outlined in Point 5.

Suggestion: (1) The compilation of comparable unit costs of "Physical Operation of School Plant" is impracticable at the present time, at least, as it relates to the major items of the cost

of fuel consumed, and the cost of salaries of those engaged in operating the heating and ventilating plant. (2) School financial officers should be encouraged to report costs of "Physical Operation of School Plant" in a manner similar to that outlined under Point 5. (3) It is probable that some comparable unit costs of cleaning alone might be developed by using the floor-area or classroom-unit factors.

6. Cost of Physical Maintenance of School Plant

Definition. Bulletin No. 24 defines the *"Cost* of Physical Maintenance of School Plant" as the cost of repairs of buildings and the upkeep of grounds; the cost of repairs and replacements of instructional, engineers', janitors', and furniture equipment and other expenditures for the restoration of property to its original condition of completeness of efficiency. Certain alterations and betterments of old buildings, and additions to instructional, engineers', janitors', and furniture equipment therein are considered as "Capital Outlay."

Point 1. The conservative view of the writer with regard to what constitutes "Capital Outlay" is referred to under that heading.

Point 2. As previously stated, building, sanitary, and fire codes differ widely throughout the country, as do the costs of labor and materials. For example, extensive fire-prevention work in antiquated buildings has been an important cost factor in cities during the past twenty years.

Point 3. To what extent does the board of education perform repairwork with departmental labor, and what is the effect of this practice on cost?

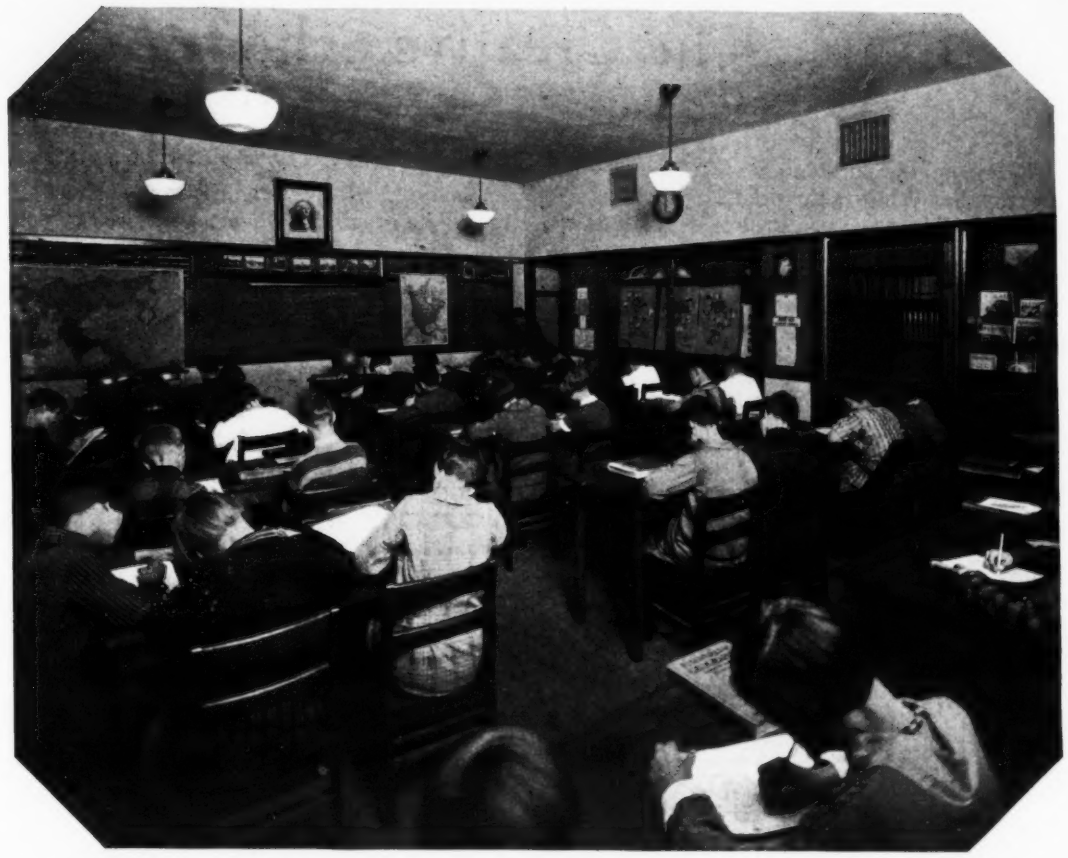
Point 4. To what extent are engineers and janitors required to make minor repairs, such as replacing valves, resetting in glass, etc.?

Point 5. It is essential to know whether the maintenance of buildings and equipment is kept up-to-date, or is lagging behind. If the latter is the case, is the condition due to insufficient appropriations, or to inability to get all necessary work done in the limited time when schools are closed?

Point 6. Is it the policy to perform foreseen repairs fully in a certain number of buildings each year, on some basis of rotation, with emergency repairs cared for as necessity arises? Or is it the policy to perform yearly the most needful foreseen repairs in all buildings?

Point 7. In the opinion of the writer, the greater part of the maintenance cost arises from deterioration and decay through the action of the elements, and through the wearing out of such building equipment as the heating, ventilating, electrical, sanitary, etc., and that such costs have but little direct relationship to the volume of pupil attendance. It is thought that only a minor part of the maintenance cost can be attributed to wear and tear through use of the plant pupils, and therefore, that a unit maintenance cost based upon the factor of pupil attendance does not bring out the most salient comparable fact. For example, in one locality buildings may be used to normal capacity only, while in another locality similar buildings may be overcrowded, without affecting materially the relative total costs of maintenance.

Point 8. It is thought that the character of buildings and equipment and the capital cost thereof has the most significant and comparable relationship with maintenance costs, and that useful comparable facts may be adduced from something like the following:



A TYPICAL CLASSROOM, WASHINGTON GARDNER HIGH SCHOOL, ALBION, MICHIGAN

Suggestion: (1) To base comparable unit costs of "Physical Maintenance of School Plant" upon an attendance factor is impracticable, at least at the present time. (2) School financial officers should be encouraged to report costs of "Physical Maintenance of School Plant" in the manner shown in Point 7.

Here, as in other parts of this paper, the word "comparable" is used in a nation-wide sense, and the discussion is not intended as implying a limit upon the kinds of unit costs which may be found valuable for local use, as e.g., one building with another of the same type of construction, etc.

7. Cost of Capital Outlays

Definition. Bulletin No. 24 defines the "Cost of Capital Outlay" as the costs of land, of new buildings (including structural and furniture equipment), of landscaping and playgrounds, and of alterations (not repairs) to old buildings. New equipment in old buildings is to be applied to "Capital Outlay" as for example, furniture, educational, shop and laboratory equipment, etc., (but not repairs and replacements).

Point 1. Building, sanitary, and fire codes differ widely throughout the country, as do the costs of labor and materials. Also some communities have to build and equip against a rigorous climate, while others do not. Unit costs of various types of construction are well developed from the architects' points of view, and we need not, for the purposes of this outline, do other than mention the fact. Zoning the country by latitudinal lines, or in some other manner, might lessen some of the larger difficulties.

**Class of Structure*	*Capital Cost of Buildings and Equipment*	*Cost of Maintenance*	*Per Cent of Maintenance to Capital Cost*
Class A. (Fireproof as defined by the Building Code)			
Class B. (Buildings having only the first floor of fireproof construction)			
Class C. (Buildings of brick construction with wooden floor beams)			
Class D. (Buildings of wooden or frame construction)			
Class AC. (Buildings partially of the A and partially of the C type)			
Class CD. (Buildings partially of the C and partially of the D type)			

*Classification of the New York City Building Code.

Point 2. It seems futile to attempt to set up any comparable unit cost on the basis of attendance, accommodations, or any similar factor because, as between large cities especially, in addition to the variations in construction costs, the *usage* varies from buildings not fully occupied to those grossly overcrowded. Further, most modern school plants have been built with the depreciated dollar, so that any cost comparisons, unless grouped by periods of time, may be more misleading than significant.

Of course, a variety of unit costs may be developed to satisfy local requirements, and these may be related to population, to attendance, to accommodations, etc., but we are here talking about the feasibility of computing comparable unit costs of construction in a country-wide sense.

Point 3. The following form of information with regard to each building, as shown in the New York City report, has been favorably commented upon, both within and without the city. A combination of financial and physical facts is shown in such manner as to present a fairly accurate visualization of the whole plant:

1. Diagram of site with costs of acquisition.
2. Picture of building with details of cost.
3. Details of building:
   a) Classification under building code
   b) Number of stories
   c) Material
   d) Number of classrooms
   e) Number of sittings
   f) Items of heating and ventilating equipment, etc.
4. Special features of building:
   a) Gymnasiums
   b) Auditorium
   c) Roof playground
   d) Shower heads and pools
   e) Laboratories and science rooms
   f) Domestic-science rooms
   g) Commercial rooms
   h) Shops or vocational rooms
   i) Drawing rooms
   j) Library rooms
   k) Sewing rooms
   l) Kindergarten rooms
5. Uses of building:
   a) Day schools (itemized)
   b) Evening schools (itemized)
   c) Summer schools (itemized)
   d) Auxiliary agencies (itemized)
6. Cost of physical maintenance (itemized)
7. Cost of physical operation (itemized)

Point 4. The writer is a conservative in the matter of applying school costs to "Capital Outlay." As to building alterations, he believes that unless the expenditure represents a sizable and lasting enlargement of school plant in a real estate sense, the cost should not be capitalized. Changes or alterations which amount to a mere rearrangement of the existing plant, or even if there be a slight gain

(Continued on Page 117)

The Creative School Administrator

Supt. R. C. Clark, Seymour, Conn.

The job of the superintendent of schools is very complex. While many others are complaining that business or even professional life is a round of monotonous routine, the superintendent of schools finds in his task so many ramifications that he feels that he is laboring in a tangle of conflicting duties and of problems which range from the petty to the profound. He has aspirations for accomplishment so high that even partial achievement is triumph. He is surrounded by stubborn inhibitions. The mores of long standing in the community are difficult to modify. When he is in the classroom, he knows that administration problems wait for him at the office; when he is in the office, he knows that classroom teachers need his supervision at that very moment. He must study the forward movements in method of teaching and organization. His social calls are insistent and important. Truly the superintendent lives a busy and varied life. Moreover, his responsibility is very great. On his wisdom and success rests, to a large degree, the physical, mental, and moral welfare of many individuals and, in a measure, of society itself. If he can mold a constructive program that is felt as a telling influence in the present and adult lives of the children in the community, he is a creative superintendent.

A Working Philosophy

In view of the condition mentioned it is advisable for the superintendent to adopt what may be termed a working philosophy. He has a vision of what a school should be and do. This vision must be reduced to attainable terms for immediate use. For example let us assume that his philosophy requires that the teaching in his schools shall be in the hands of adequately trained teachers. In making his philosophy workable he may have to modify for the time being, his conception of adequate training or choose a less-exacting word. He will probably find that to discharge all teachers who do not meet his modified requirement would be unwise even if it were desirable. After a careful study of the situation, he secures for his working philosophy a requirement that every grade teacher hired in the future shall have had at least two years of normal-school training.

Ideals are transformed into objectives with definite plans for their attainment. These objectives must be altered from time to time as conditions permit to more nearly conform to the ideal. In the illustration just used, teachers may be urged, helped, and possibly required, to attend summer school or extension classes at stated intervals. Three years of normal training may eventually become the minimum requirement for teachers entering the service. The point is that a superintendent must work out a well-defined, carefully adapted policy on each of the major and many of the minor phases of his responsibilities. Only as he has done so will he be able to go out, meet the situation in advance, deal with it in full knowledge and understanding and become a creative superintendent.

Authority and Responsibility

The civic task of maintaining and properly conducting the public schools has been placed by the states in the hands of the local school board elected by the people for that purpose. This committee has grave responsibility and is given commensurate authority. Much of this responsibility and an annually increasing large amount of authority it has delegated to the superintendent of schools. Under the laws of the various states the superintendent has little or no authority except that which is given him by his board. Where authority is given, he is or should be held to strict accountability. The creative superintendent seeks the authority necessary for a constructive program of school administration and cheerfully accepts the responsibility.

It seems to me imperative that the school board should adopt a written set of rules, defining the duties and responsibilities of the superintendent.

When these rules are adopted, they serve as a guide for the work which he is to do. The superintendent who has such rules is working on a much firmer basis than one who assumes authority by common consent. To say that he is the executive of the committee is not illuminating. He needs clear, definite statements.

Authority in some lines is so essential that I cannot see how a superintendent can do a creative piece of work if he does not possess it. I can think of no more faulty organization than that the superintendent be held responsible for classroom results of teachers in whose appointment, promotion, or retention he has no influence, working with textbooks and supplies he has not selected. Employees of the board, teachers, supervisors, janitors, and clerks over whom the superintendent has supervision and for whose work he is responsible should be selected or promoted on his nomination and on his nomination only. The selection of textbooks and supplies demands technical knowledge possessed only by the superintendent and some of his subordinates. This is no job for the layman. On the other hand, I can see no essential reason why the committee should not buy the coal and after consulting the superintendent, have repairs and alterations made. They may be able to bring a practical knowledge which the superintendent does not have. The only reason for turning these matters over to the superintendent is that the desirable school-board member is a busy man or woman. He has his own living to earn, while to the superintendent of schools these matters are his bread and butter as well as his consuming passion.

The Executive and Legislative Function

It is sometimes said that the function of the school board is legislative, that of the superintendent executive. This is a good general principle of organization. It should be remembered, however, that the truly functioning legislative body is constantly informed on the work of the executive. It is not good policy for the board to trouble the superintendent with petty interference. On the other hand, the creative superintendent will look to the board for wise counsel and see to it that the members are informed of his plans and convinced of the soundness of his purposes. They are near the people, interested in school progress, eminently qualified to help, and ultimately responsible for the schools. He should expect loyalty and give it. Mutual understanding and coöperation are essential for creative administration.

If he is a true leader, the superintendent must originate or advise upon school legislation. His knowledge of educational theory and practice should be more extensive than that of any committee member. His knowledge of the local school situation should be more intimate. The board must look to him for guidance in local school legislation. The creative superintendent will not fail them.

Study

Leadership in the educational field must be largely based on knowledge. Knowledge is ever advancing and he who would possess her must be in constant pursuit. With this in mind the creative superintendent is a constant student of educational organization, method, and philosophy. The person who does not read magazines and books relating to his profession can lead in only one direction — backward. It should be understood that he is to have time to visit other school systems, attend conventions, and study at home or at summer school. This is not a privilege, but a duty to himself and to his schools. It is a wise school board that encourages him to do this. If he is creative, he is receptive to ideas, open-mindedly weighing their value, assimilating the good into his thought and practice.

Publicity

The public must be kept constantly in touch with the school administration's aims and purposes. It is a well-established principle of administration that committee and superintendent can advance the schools about as far and fast as they can take the public with them. If they go much faster, elections come and a reactionary administration is set up. This does not mean that a timid policy is to be followed. Constitutional contrary-mindedness must be discounted, because a majority of the people want schools. They want good schools and if it can be shown that they are getting them, and that their hard-earned tax money is being wisely spent for the children's good, they will support the administration. So the creative superintendent by newspaper publicity, by exhibitions of schoolwork, by personal contact, by a variety of methods keep the schools in touch with the public and the public in touch with the schools.

Financial Responsibilities

The creative superintendent remembers that the tax money which supports the school is earned by hard labor on farms, in stores, and in the shops. Some taxpayers work long and hard for little more than a rather drab existence. Not a dollar of their money should be wasted. On the other hand, he knows that money properly spent in education is essential for the well-being of the present and the future lives of the children. And so he does not hesitate to urge necessary expenditures for the support and improvement of schools.

Use of Time

Above all things the superintendent should so divide his time that the largest portion of it is given to supervision of instruction. He may have perfect machinery for organization, but if it does not result in better schoolwork by the pupils it is all in vain. A superintendent, especially in a rural district, has no right to be so busy with repairs, accounting, and other office activities, that he neglects the actual procedure in the schools. Teachers and pupils need the inspiration of presence in the classroom. Teachers need his personal council and advice in management and method. He must be a guide in classroom and playground activities. To this he plans his day's work with care so that neither his administrative nor his supervisory function is neglected.

Attitude

The creative superintendent cultivates the creative attitude. He shuns the superiority complex, remembering that the most humble people may have ideas which he would do well to consider and qualities of character he would do well to cultivate. He refuses to cultivate the inferiority complex because he knows that he is peer of any, at least in educational matters. He avoids disgusts, confident that patience and perseverance will win. He is optimistic, tactful, and aggressive, happy in the great social work which it is his privilege to do.

The Administration of Janitorial-Engineering Service - V

H. S. Ganders, University of Syracuse, Syracuse, N.Y.
C. E. Reeves, Elmira College, Elmira, N. Y.

Records and Reports.[1] The principal records and reports relating to janitorial-engineering service of the official having charge of this work and of other officials are:

1. A record of the cost of special service, maintenance, and repairs.
2. Records of transfers of janitor-engineers.
3. Permanent personnel records of janitor-engineers.
4. Rating cards of janitor-engineers.
5. Janitor-engineer payrolls.
6. Report on janitorial-engineering services, attendance, and repairs, by the principal.
7. Report on sanitary conditions by the medical inspector.

Probably the majority of school systems require no records to be kept nor reports made by janitor-engineers. Out of a total of 204 school systems reporting, 111 stated that no records and reports are required of janitor-engineers. Of the 93 school systems requiring one or more records and reports by janitor-engineers, the blanks submitted indicate that some of these records and reports have little practical value.

For the sake of efficiency a number of records should be kept and reports made by head janitor-engineers. These should be as simple as possible and contain no unnecessary information. Some of the more important records and reports of janitor-engineers are the following:

1. Application blank to be filled before appointment.
2. Report of goods received.
3. Requisitions for janitorial supplies.
4. Inventories of janitorial supplies.
5. A monthly service report.
6. Janitor's attendance report.
7. Report of meter readings.
8. Report of heating, fuel, and ashes.
9. Report of repairs needed and completed.

Janitors Make No Purchases

Requisition and Purchase of Janitorial-Engineering Supplies. In the 90 sets of rules and regulations analyzed, 33 contain specifications for the method of obtaining janitorial supplies. These are as follows:

Purchase by janitor-engineers	4
Requisition by janitor, through principal	2
Requisition by janitor, to principal	5
Requisition by janitor, to superintendent	5
Requisition by janitor, to superintendent of buildings and grounds	4
Requisition by janitor, to secretary of board	4
Requisition by principal	5
Requisition by superintendent of buildings and grounds	3
Requisition by superintendent of schools	1

Requisitions for janitorial supplies should originate with the janitor-engineer; such requisitions to be approved by the building principal and passed on by him to the superintendent of buildings and grounds. When supplies are received, they should be distributed to the supply rooms of the various school buildings or to a central warehouse to be later distributed. The janitor-engineer should never be given authority to purchase supplies. If the cost is small, the superintendent of buildings and grounds may have authority to order directly through the purchasing agent or even to purchase directly for the school. If the cost is great, even occasional supplementary requisitions should receive the approval of the superintendent of schools.

In many cases boards of education prohibit janitor-engineers from ordering, directly, supplies for their schools, and charging them to the school district. In a few cases they are specifically given this privilege in the rules and regulations. The former would seem to be the better administrative practice. Many such expenditures by janitor-engineers would not be wise or economical. A school district, like any other enterprise will soon find itself in financial difficulty if it allows every employee to spend its funds.

Supplies should be selected from a standard supply list. This list should provide opportunities to janitor-engineers to use supplies which will best fit their particular needs. For example, there should be brushes having blocks of various lengths. A janitor in a high school may prefer a brush having an 18-inch block, while a janitor in a primary school may need a brush having a 14-inch block.

The Daily Work Load

The Control of School Buildings. With the building principal should certainly be left the decision as to the use of the building for school functions. The decision as to its use for community functions may be delegated to the principal or some administrative official in higher authority. A janitor-engineer who assumes the prerogative of refusing to open buildings for school or community use, when authorized permits have been secured, assumes a function which he is not qualified to perform.

Assignment of Service Load and Placement. The administrative department in charge of janitorial-engineering service must collect data by which the difficulty of service for each building can be definitely determined. Only by some such method of procedure can the necessary cost of caring for each building be determined. This will be a big task in itself, but it is one that will be worthy of the best efforts of the department. To one who has observed the amount of janitorial-engineering service provided for the various buildings in almost any city, it is all too evident that the number of employees provided for the various buildings is usually a matter of guesswork. Resort to objective data concerning the difficulty of caring for particular buildings, time studies of men at work, and the scoring of conditions existing in school buildings, all show that in many cities, it is not uncommon to find buildings so far undermanned, as compared to others in the same city, that janitor-engineers have twice as much work to do, or to be left undone, as have the janitor-engineers of other buildings.

Work Schedules. The daily, weekly, and yearly work schedules for a particular building should be the result of careful study and planning. They should be made by the head janitor-engineer of each building and should be submitted to the superintendent of buildings and grounds or his assistants for approval. This official may have many suggestions to offer concerning the schedules for the year, which will include plans for performing infrequent, vacation and summer jobs. In some cases he may find it necessary to make suggestions concerning the daily work schedules. For example, in the daily schedules he may find a school in which the sweeping is to be left until morning, or he may find a school in which both sweeping and dusting are to be performed after school is dismissed.

Direct Employment Necessary

Method of Employment. The selection of all employees by the board of education, upon recommendation by the superintendent of buildings and grounds is preferable to the "contract plan" in which the work of caring for buildings is "let" to a custodian, all assistants being chosen by him. The following statements by superintendents of schools indicate the features of the latter plan:

> They (the janitor-engineers) furnish themselves with all necessary supplies, such as brooms, soap, and dusters. They also supply such needed help as is required, paying for such service themselves.
>
> * * * *
>
> This comprises our latest schedule and pays janitors from a minimum of $141 per month to a maximum of $492 for the grade schools. These figures cover the entire expense of janitorial service. The head janitor employs his own assistants and pays them from his salary, and the assistants are not under the control of the board of education.

The plan of contracting janitorial-engineering work to a chief custodian, paying him a lump salary, and requiring him to furnish all assistance, and sometimes even all janitorial supplies is altogether too common for the good of the schools. Garber found that of 946 cities reporting in 1919, assistant janitors were employed by the custodians in 509 cities and by the school authorities in but 437 cities. In 372 cities they were paid by custodians, while in 502 cities they were paid by the board of education.

Objections to Contract Cleaning

Under this plan buildings are almost certain to be inadequately cared for. The cheapest kind of supplies are purchased, and inadequate and inefficient assistance is employed. All employees of the janitorial-engineering force should be selected by the educational authorities and should be directly responsible to them. When head janitor-engineers or custodians select assistants, there is a great temptation to select ignorant, inexperienced, unqualified help, at the lowest possible wage. Efficiency of service is usually sacrificed in order that a greater part of the compensation may remain for the custodian's share. Under this plan there is also usually lack of coördination and coöperation between the custodian and the educational staff. The custodian assumes an authority equal to or above that of the principal, and as a result the janitorial-engineering work is not carried out in the best interests of the educational work of the school.

One of the conclusions of the Chicago Commission in 1913, was: "that the inauguration of a system whereby the board will have greater control over the employees and compensation paid them will improve the quality of the service. . . ."[2]

Service Contracts Not Essential

Contracts for Services. Contracts with janitor-engineers or assistants may be either written or oral. In 139 of 153 cities reporting to the writers, no written contracts were made with any janitorial-engineering employees. In 14 cities written contracts were made with these employees. The blanks submitted indicate that some forms are brief and others are long and complicated. Sometimes even rules and regulations are included in the contract forms.

The contracts for services are not to be confused with the "contract plan" by which a custodian assumes the responsibility for the care and operation of buildings and often does no work in them, himself. Contracts for services are similar to those made with teachers. They are made, in the main, to insure the performance of specified services or continuance in service.

[1] For a more complete discussion of the subjects of records and reports see Reeves, C. E. and Ganders, H. S., *School Building Management*, Chap. XIX, Teachers College, Columbia University, New York.

[2] Civil Service Commission, Chicago, *Report on the Investigation of Engineer and Janitor Service*, p. 43, Board of Education, Chicago, Ill.

Contracts are entirely unnecessary. They bind the board of education but seldom bind the janitor-engineer. No board would want to keep a janitor-engineer against his will, even if it could do so. On the other hand, contracts make dismissal of an inefficient janitor-engineer difficult.

Unionization of Janitor-Engineer. Where janitor-engineers affiliate with labor unions, the interests of the schools are likely to be jeopardized as truly as where teachers hold such affiliation. The principal result of unionization is often less service at higher salaries. Any strike of janitor-engineers is a strike against the public welfare. Any individual who does not place his duty to the children of his community above his duty to a labor organization, has no place on the janitorial-engineering force of public schools.

Unions Not Needed

Some years ago the janitor-engineers of a certain large city were unionized. The schools had just been reopened after being closed for some time because of an epidemic of influenza, when the union ordered a strike of all school engineers, and where the order was complied with, the schools were again closed. The chief engineer took matters in hand and had boilers changed from high pressure to low pressure. Some substitutions in the engineering force were made and the closed schools were reopened as soon as possible. For the sake of the educational function of the schools it is essential that no outside organizations have control over the employees of the schools.

Rules and Regulations and Communications. Rules and regulations concerning janitorial-engineering service are, where they exist, usually published by boards of education as a part of the general rules governing the work of all school employees and the conduct of the schools. These are placed in the hands of all employees of the school system, including janitor-engineers. Sometimes, however, the rules pertaining to janitorial-engineering service are published separately from the rules relating to other matters, and each employee of the janitorial-engineering force is furnished with a booklet of such rules and regulations. This is often practiced in the largest cities. In a few cities, a number of the rules for janitor-engineers, or all of them, where the number is not great, are published on heavy cardboard, and janitor-engineers are required to post them in their quarters for ready reference.

Rules for Janitors

The official in charge of janitorial-engineering service should be given authority to add to the list of published rules, by special communication, whenever he sees the need for such additions. Where the official in charge of janitorial-engineering service is not given such authority, the objections to having any rules and regulations, made by a number of superintendents of buildings and grounds, become valid objections. They maintain that rules tend to fix and limit the duties of janitor-engineers, and such duties must, in the interests of efficiency, be subject to change with changing conditions and needs.

One of the notable things about many rules and regulations is that they are not kept up-to-date, but they hark back to the time when stoves were the means of heating schoolrooms and when the janitor was expected to stir up dust with a broom and feather duster in the hope that it would float out of an open window. Another thing that is noticeable is the number of rules that are identical, or nearly so, in the compiled rules and regulations of various cities, indicating that they were constructed largely by the method of scissors and paste pot. On the whole, the rules and regulations that have been investigated by the writers, in a great majority of cases, indicate a lack of care and

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thought that should characterize them if they are to be an important contribution to the janitorial-engineering service of the schools for which they were made. Only the most general rules and regulations concerning this service should be made by the board of education. All specific rules and regulations should be made by the superintendent of buildings and grounds.

Bulletins to Janitors

Communications are often regularly or irregularly issued, by the official in charge of janitorial-engineering service, in the form of mimeographed bulletins to janitor-engineers, which bulletins are posted on bulletin boards in the janitors' quarters. These communications consist of additional rules, which have been found necessary, the calling of the attention of janitor-engineers to rules that are not effectively practiced by them, suggestions as to things to include in their work schedules, the making of necessary repairs, fire caution and protection from fire, calling attention to new jobs that come with the change of seasons, announcements of special meetings of janitor-engineers, announcements of summer vacations for janitor-engineers, copies of resolutions passed by the board of education which affect the service, and the like.

Hours of Work. In an analysis of 90 sets of rules and regulations for cities from 15,000 to 50,000 population, it was found that in 42 cities janitors must secure permission to leave the school building during school hours. Usually it is provided that such permission shall be obtained from the building principal, but in some cases the janitor must secure permission from the superintendent of schools or the superintendent of buildings and grounds. In four cases the janitor is required merely to notify the principal that he is about to leave and inform him as to the time when he will return.

Working Hours Long

In 47 cities janitors are required to be at their respective school buildings while schools are in session, usually with the proviso that they shall come to the building at an hour in the morning such that the building may be heated to the required temperature by a certain hour, usually 8:30 a.m., and often with the proviso that they shall remain after school until their afternoon work is completed. In six other cases the time for arrival and leaving is specified as a certain number of minutes before and after each session.

Janitor-engineers were asked to state the number of hours actually spent in work at their school buildings. The following are the results:

Three work 8 hours per day. 14 work 9 hours per day. 8 work 10 hours per day. 2 work 11 hours per day. 8 work 12 hours per day. 5 work 13 hours per day.

The length of working day and the length of working week of janitor-engineers of the Rocky Mountain Region, according to their own statements, are shown in Table I.

TABLE I. The Length of the Working Day and the Working Week of Janitor-Engineers as Reported by Janitor-Engineers of the Rocky Mountain Region, 1925–6.*

Hours of labor Per Day	*Number of janitors reporting these hours*	*Hours of labor Per Day*	*Number of janitors reporting these hours*
7– 7.9	1	40–43	5
8– 8.9	17	44–47	6
9– 9.9	7	48–51	11
10–10.9	24	52–55	9
11–11.9	23	56–59	8
12–12.9	54	60–63	33
13–13.9	20	64–67	19
14–14.9	14	68–71	8
15–15.9	8	72–75	33
16–16.9	4	76–79	12
		80–83	11
		84–87	9
		88–91	0
		92–95	0
		96–99	7
Total.....172		Total.....171	
Median.....12.3 hours		Median.....67 hours	

According to the data shown in Table I, the median janitor-engineer works, or is on duty, 12.3 hours per day, or 67 hours per week. Moreover, it was found that 48.8 per cent of the janitor-engineers work on Saturday afternoons. The hours may be somewhat shorter, than those indicated, in the fall and spring when buildings may be heated quickly, and probably are shorter during the summer months when most schools are not in session. But there must be at least half of the year, when these long hours are spent in school buildings. It is certain that they are not greatly reduced even during the warm months of the year.

Eight-Hour Day

The first step needed in reducing the number of hours required of school janitor-engineers, is usually an increase in the number of employees. In buildings where there are several janitor-engineers, it is sometimes possible to arrange schedules so that some will have time off at different times during school sessions and to provide that no janitor-engineer shall work more than eight or ten hours at the school building. In schools having more than one janitor, in a number of cities, all janitor-engineers have an eight-hour day, but the data presented would indicate that for the smaller cities and villages, the practice of arranging for an eight-hour day is not common.

In fifteen cities rules and regulations provide for one hour off for lunch before or after the noon hour. In one city there is provision for one-half hour, in two cities for three fourths of an hour, and in another, "a reasonable time off for lunch." In four cases janitor-engineers are to have no time off for lunch while furnaces are in operation.

It would seem reasonable to provide for a noon hour for janitor-engineers when there are several janitors in a school building, in which case there could always be one or more janitors at the school building during the noon hour. In cases where this is not possible, rather than leave the building during the noon hour, there will have to be provision made such that the janitor-engineer may be served a lunch at the building or he will have to eat a cold lunch brought from home. In some cases lunches are served to janitors, who must remain at the building during the noon hour, by the home-economics departments of their buildings.

*Adapted from Vander Meer, *The Status of the School Janitor of the Rocky Mountain Region*, pp. 138–40.

(To Be Continued in September)

ROOSEVELT JUNIOR HIGH SCHOOL, DECATUR, ILLINOIS
Brooks, Bramhall and Dague, Architects, Decatur, Illinois

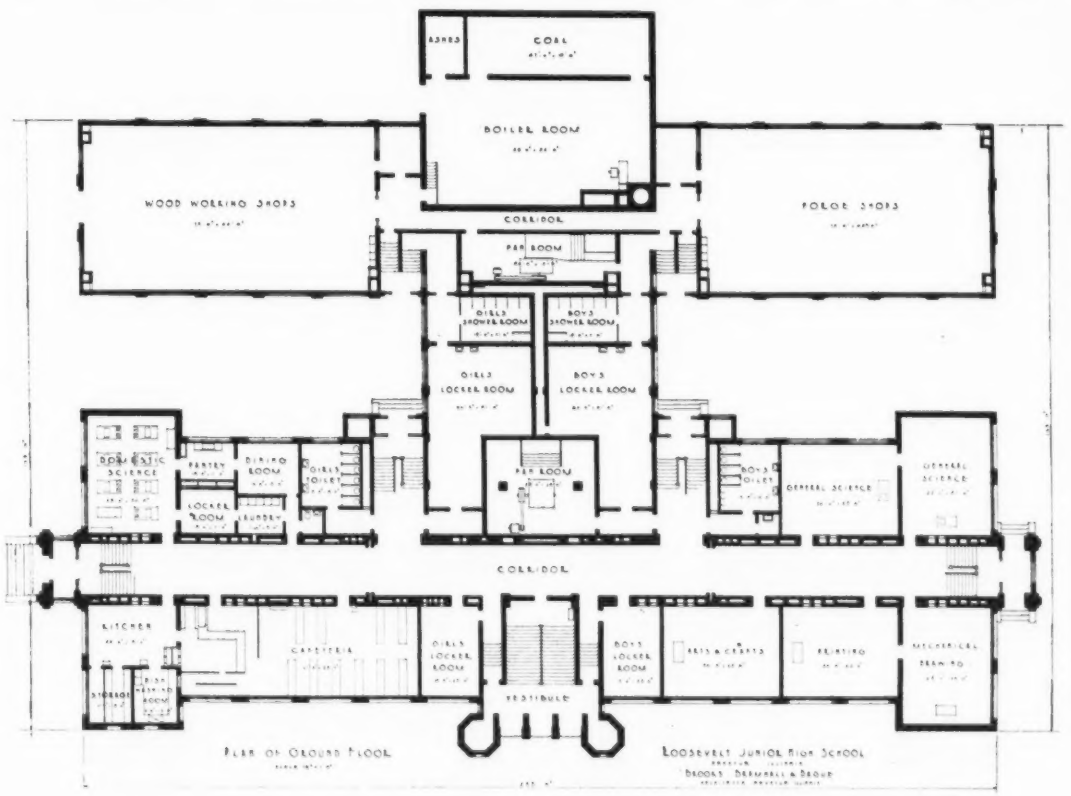
Decatur Solves Junior-High-School Construction Program

Cities in the middle west have met two difficult problems in schoolhouse construction since the close of the world war. In the industrial cities there has been a constant shortage of school-building space, due to the interruption in the schoolhouse construction program during the war years, when the shift in industrial population sent the school enrollment leaping upward. A second difficulty has arisen from the fact that most of the cities found themselves at the close of the war in the process of changing their school organization from the older eight-four plan to the six-three-three plan. The city of Decatur, Illinois, is a community which has successfully met its schoolhouse construction program under circumstances very similar to those just described.

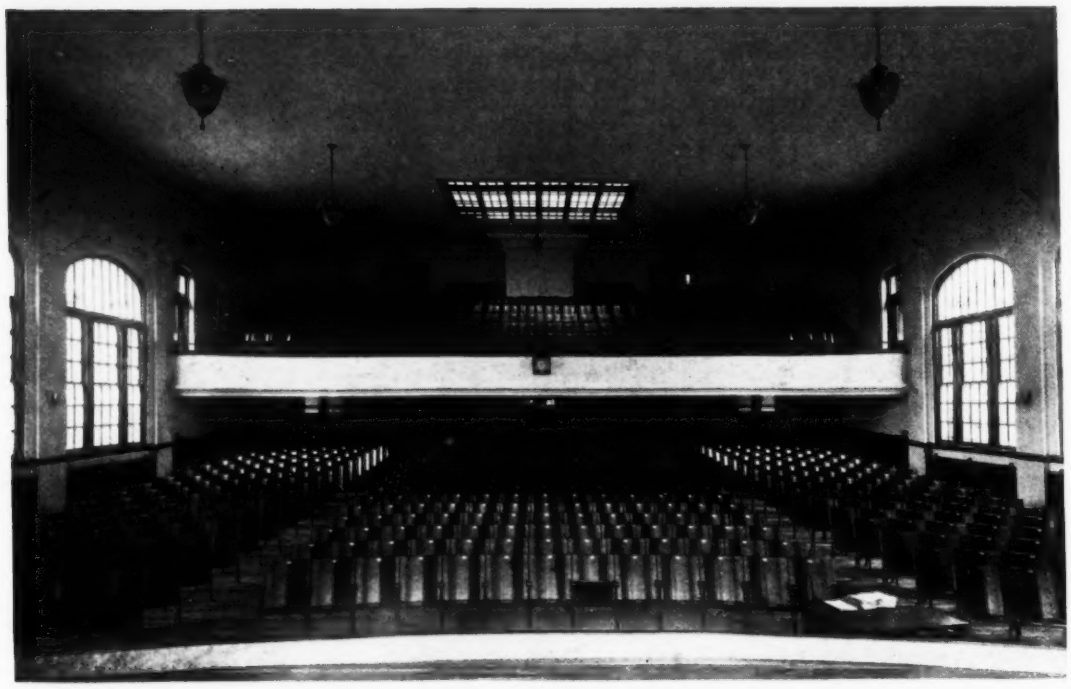
The war and the years following brought to Decatur considerable industrial expansion with an attendant increase in school population. Consequently, the board of education has been faced annually with a considerable increase in school enrollment. Fortunately, the school system operates under a special charter which provides the board of education with unusual authority, and makes it unnecessary for the board to receive a direct approval of its actions, except when a bond issue is necessary.

The Decatur board of education is composed of three members; it has always enjoyed the service of men and women of the highest integrity and ability, and has as a consequence, always enjoyed the confidence and respect of the community. The board acts as a unit and has made its decisions promptly and with a feeling of direct responsibility. This policy has enabled the board, faced with limited available funds, to give the community a splendid school program, based on progressive educational policies. The school-building program and the school-maintenance program have been considered not only in the light of present needs, but also on the basis of the long-term service of the buildings as a means of carrying on the educational program. Necessary school-bond issues have been voted readily and with full confidence in the unquestioned integrity and foresight of the board of education.

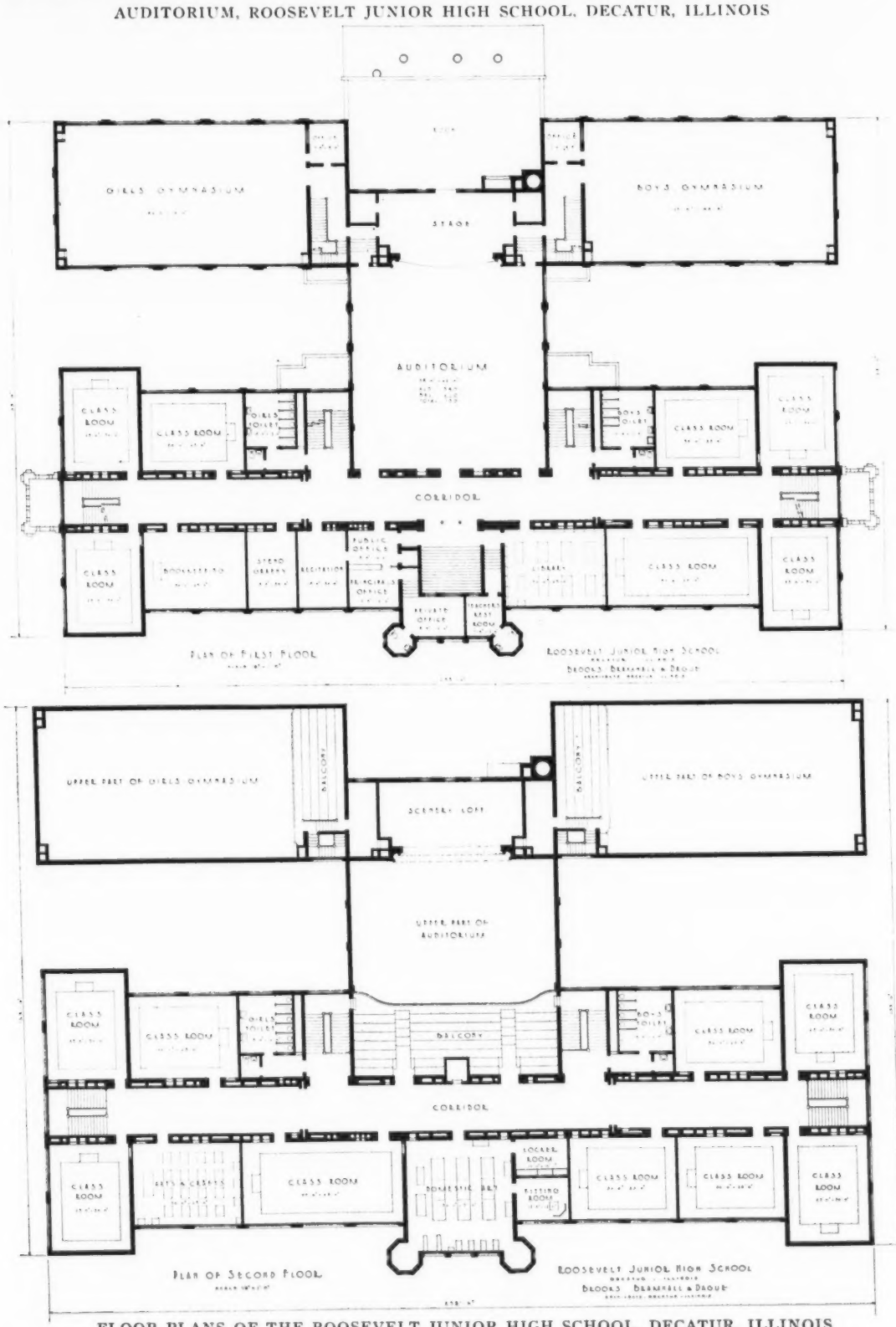
Decatur has been favored with exceptionally strong superintendents of schools. It is perhaps axiomatic that an exceptionally competent board of education will exhibit its competence in employing an able superintendent of schools. The superintendents of Decatur have been men of ability and educational leadership and have exerted this ability in developing educational ideals and in working out a wise building program. The junior-high-school building program was initiated by Mr. J. O. Engleman, who was succeeded several years ago by the present superintendent, Mr. William Harris. The latter has been ably conducting the building program



GROUND FLOOR PLAN, ROOSEVELT JUNIOR HIGH SCHOOL, DECATUR, ILLINOIS
Brooks, Bramhall and Dague, Architects, Decatur, Illinois



AUDITORIUM, ROOSEVELT JUNIOR HIGH SCHOOL, DECATUR, ILLINOIS



FLOOR PLANS OF THE ROOSEVELT JUNIOR HIGH SCHOOL, DECATUR, ILLINOIS
Brooks, Bramhall and Dague, Architects, Decatur, Illinois

on the basis of a careful study, in which the entire program of the junior high school was carefully considered. Associated with Mr. Harris has been Mr. C. W. Evans, assistant superintendent of schools and business manager, who has had wide experience and a notable record of schoolwork in Decatur and in smaller school districts where he was superintendent of schools. Mr. Evans has been carrying on the business of the school dictrict with full appreciation of the educational service of the schools and in full coöperation with the plans of the superintendent. Through the close coöperation of Mr. Harris and Mr. Evans, with the board of education, strict economy has been maintained in order to achieve constantly higher standards of educational policies, improvement of the teaching staff, and permanence of the building program.

About 1915, the Decatur board of education decided as a policy to construct larger school units in order to effect greater economy and efficiency in the educational conduct of the schools. It was felt at the time that the larger units might be operated and maintained more economically and that there might be economies in the purchase of playgrounds, etc. The lack of finances at the time did not always permit the completion of large school buildings, but the possible expansion of each of the new structures was carefully taken into account. The architects were instructed to prepare only such plans as might be expended by the addition of classrooms and other facilities when the population required and the closing of older and smaller buildings made possible.

The acceptance of the junior high school as an integral part of the school system of Decatur proved to be not only a solution of its educational program, but also a distinct advantage in working out a long-term building program. The city of Decatur is divided into four quarters by several railroads, which cross each other practically at right angles and which divide the city into fairly equal areas. The size and the rate of growth of the community are such that the board has planned four junior high schools, to be located in convenient places in each of the four quarters. This arrangement will enable all of the children to attend a junior high school, without crossing railroad tracks or walking more than three quarters of a mile to school.

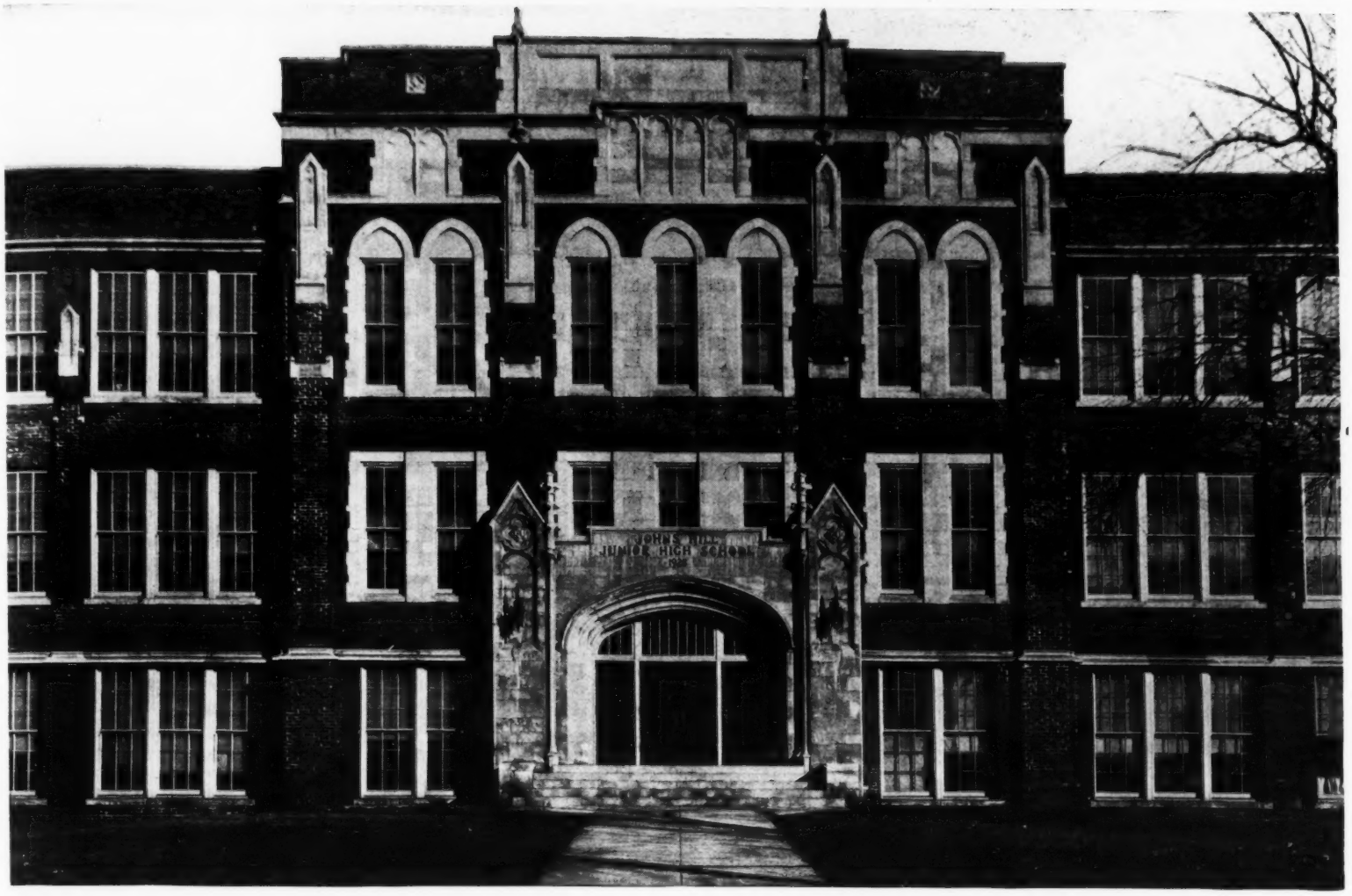
After an extensive survey it was found that the elementary schools could be so located that the walking distance for pupils would not be greater than one-half mile. To adopt the plan, however, it was necessary to evolve a considerable financial program, because it would be necessary to abandon several old buildings and to replace them with classrooms in new structures. In addition, new classrooms would be necessary to care for the increasing school population.

The Roosevelt Junior High School

The Roosevelt Junior High School, located in the northwestern part of the city, was the first to be planned and erected. Preparation for it was made in 1921, under the general direction of Supt. J. O. Engelman. The building was constructed during 1922, and occupied in 1923. The building was erected as a complete unit to relieve the crowded conditions of the senior high school. The main front of the building faces north on a quiet residential street.

The plan of the building is in the form of a huge letter H, with the classrooms in the front wing, the workshops and gymnasiums in the rear wing, and the auditorium and locker rooms in the connecting section.

Both the plan and the layout of rooms represent the best thought concerning the junior high school in 1921–22. The classrooms, shops, and the cafeteria are located on the ground floor. The general classrooms are located on the first and second floors.



ENTRANCE DETAILS, JOHNS HILL JUNIOR HIGH SCHOOL, DECATUR, ILLINOIS
Brooks, Bramhall and Dague, Architects, Decatur, Illinois

The exterior of the building has been carried out in a very dignified adaptation of a modernized gothic. Mat-face variegated red and brown brick have been used and the trim is in mottled buff terra cotta, which combines pleasingly with the brick. Throughout the building, the walls are of brick, the concrete corridors are finished with terrazzo floors and brick walls, and the classrooms have plastered walls, maple floors, and oak trim. The auditorium has been carried out in a dignified design, with plastered walls, maple floors, and oak trim. It has a large stage, a total seating capacity of 750, and is equipped with picture-projection apparatus. The gymnasiums are carried out in brick walls and maple floors.

The building is heated and ventilated by means of steam, with direct radiation in all rooms, and central fan ventilation. Three fans are provided, one for the auditorium, one for the classrooms, and one for the shops and gymnasiums. The entire heating plant is under automatic control.

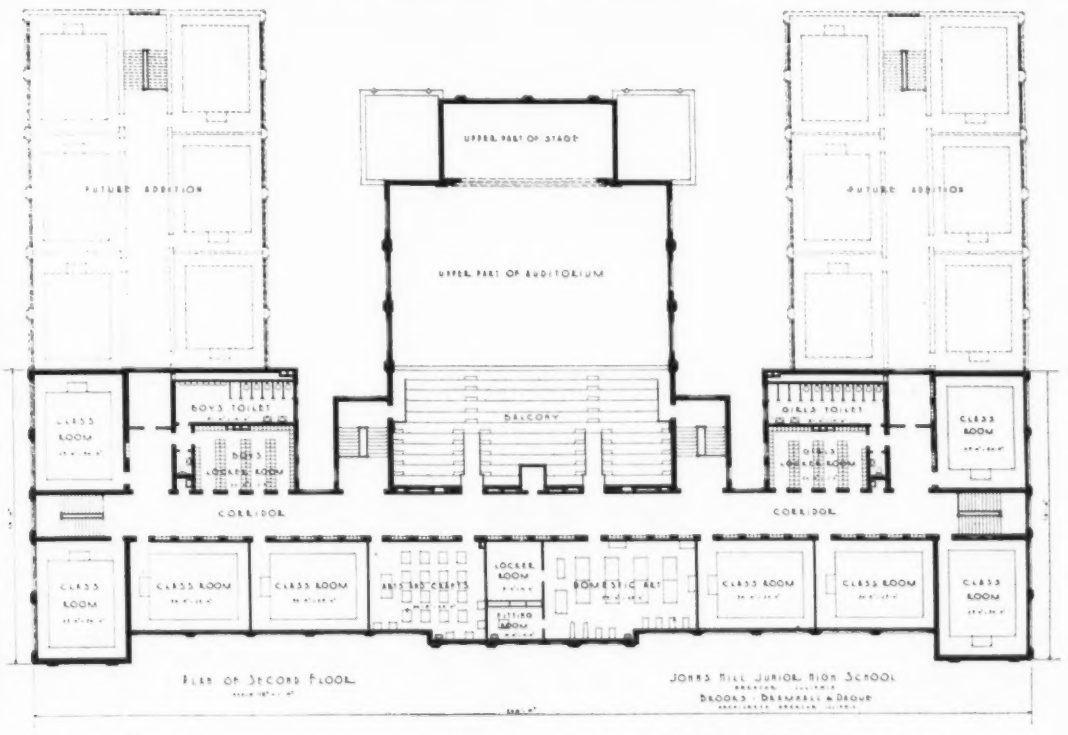
The building has an enrollment of nearly 1,100, which is practically its present pupil capacity.

The Johns Hill School

In plan, construction, and equipment this building represents the radical changes which have taken place in the junior high school in the past six or eight years. The building is complete as a unit, but is planned for considerable extension of its classroom and shop facilities. The plan itself shows considerable economy in layout and flexibility for use. The ground floor contains the science rooms and shops, as well as the cafeteria. Classrooms, the executive offices, and a large library are located on the first floor. Classrooms and a household-arts department are located on the second floor. The shops which are of the smaller unit type, are designated as classrooms on the ground floor and will be expanded when the additions to the building are located.

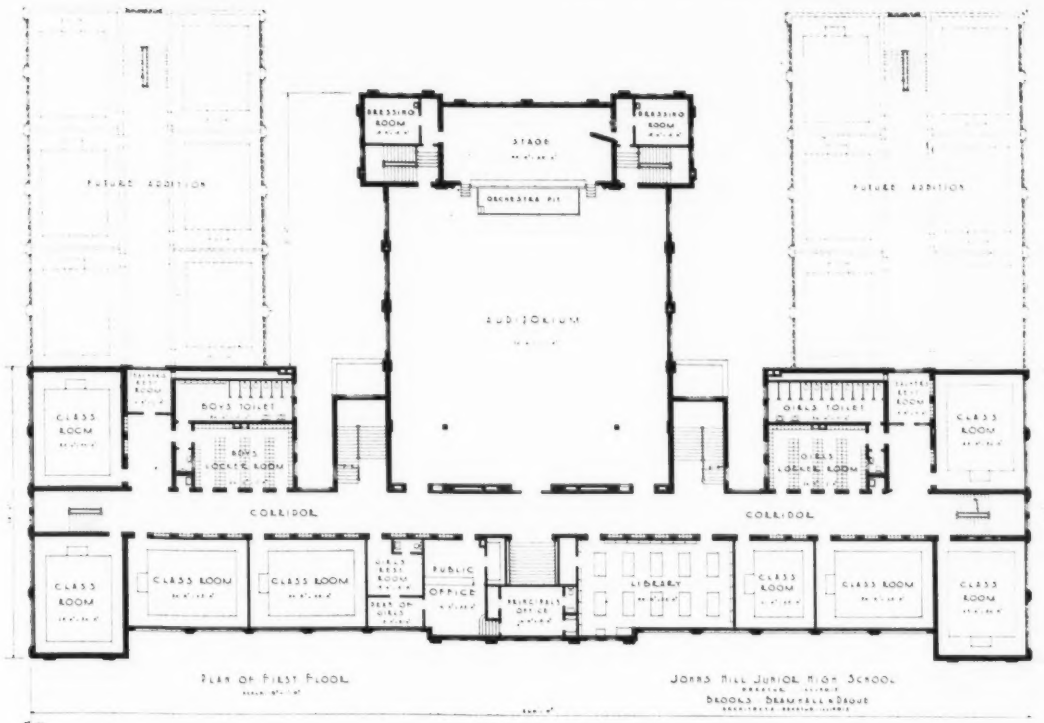
The auditorium and the gymnasium are located in a central wing to the rear of the building. The arrangement is such that the balance of the building can be shut off when either the auditorium or the gymnasium are used at night for community meetings. The auditorium measures 72 by 77 ft., and has a seating capacity of 1,300. The gymnasium measures 72 by 97 ft., and has seats for 750. The unusual size of the auditorium and the

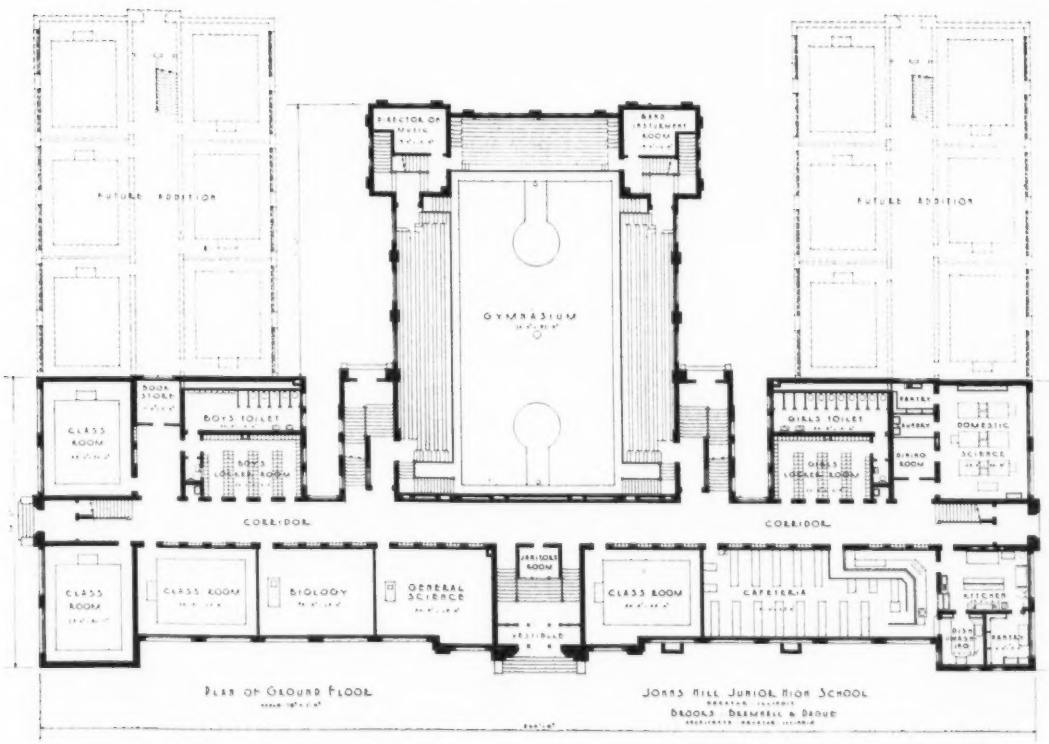
FOODS LABORATORY, JOHNS HILL JUNIOR HIGH SCHOOL, DECATUR, ILLINOIS



SECOND FLOOR PLAN, JOHNS HILL JUNIOR HIGH SCHOOL, DECATUR, ILLINOIS
Brooks, Bramhall and Dague, Architects, Decatur, Illinois

JOHNS HILL JUNIOR HIGH SCHOOL, DECATUR, ILLINOIS
Brooks, Bramhall and Dague, Architects, Decatur, Illinois





FLOOR PLANS OF THE JOHNS HILL JUNIOR HIGH SCHOOL, DECATUR, ILLINOIS
Brooks, Bramhall and Dague, Architects, Decatur, Illinois

gymnasium is due to the fact that these facilities also serve the adjoining elementary school and are intended for community gatherings.

The exterior of the building is designed in a modified gothic and has been carried out in variegated brown brick and limestone trim. The construction of the building throughout is of steel, concrete, and brick. The corridors have concrete floors and finish-brick walls. The classrooms have hardwood floors over concrete, and plastered walls and ceilings. The auditorium has a wood floor over concrete, plastered walls, and acoustic treatment on the ceiling. The gymnasium is in hard-maple finish, with brick walls, and special wood ceiling.

LIBRARY AND STUDY ROOM,
JOHNS HILL JUNIOR HIGH SCHOOL,
DECATUR, ILLINOIS

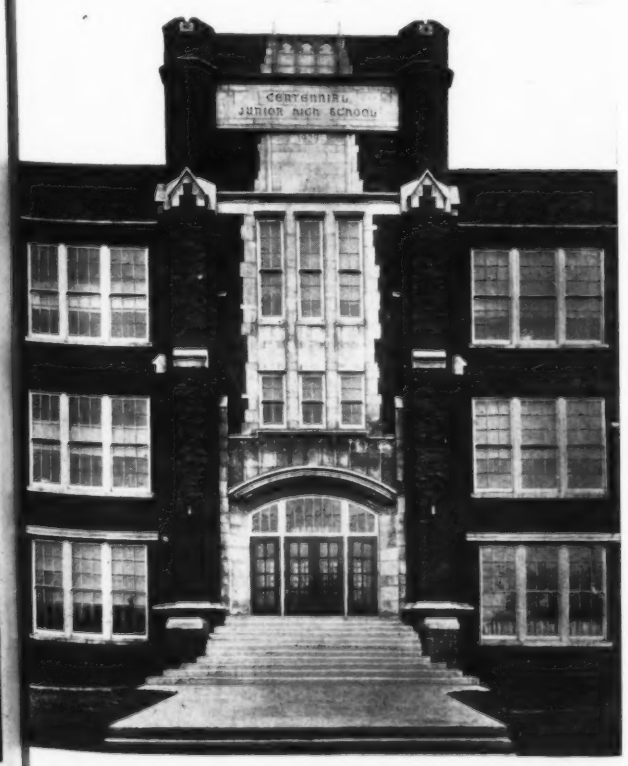
GENERAL SCIENCE ROOM,
JOHNS HILL JUNIOR HIGH SCHOOL,
DECATUR, ILLINOIS

CENTENNIAL JUNIOR HIGH SCHOOL, DECATUR, ILLINOIS
Brooks, Bramhall and Dague, Architects, Decatur, Illinois

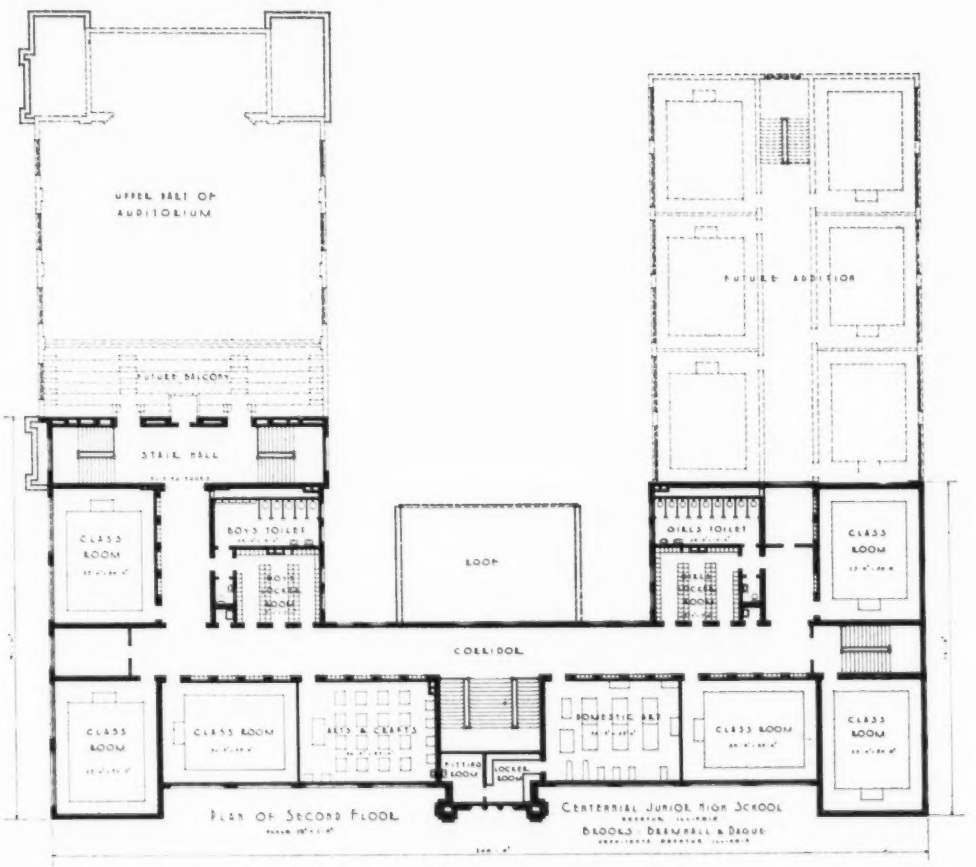
The building is heated and ventilated from a central heating plant which heats an elementary school near by. Unit ventilators are provided in all instructional rooms and direct radiation in noninstructional rooms. Automatic temperature control is provided. The building has a total capacity of 1,000 and cost $308,000.

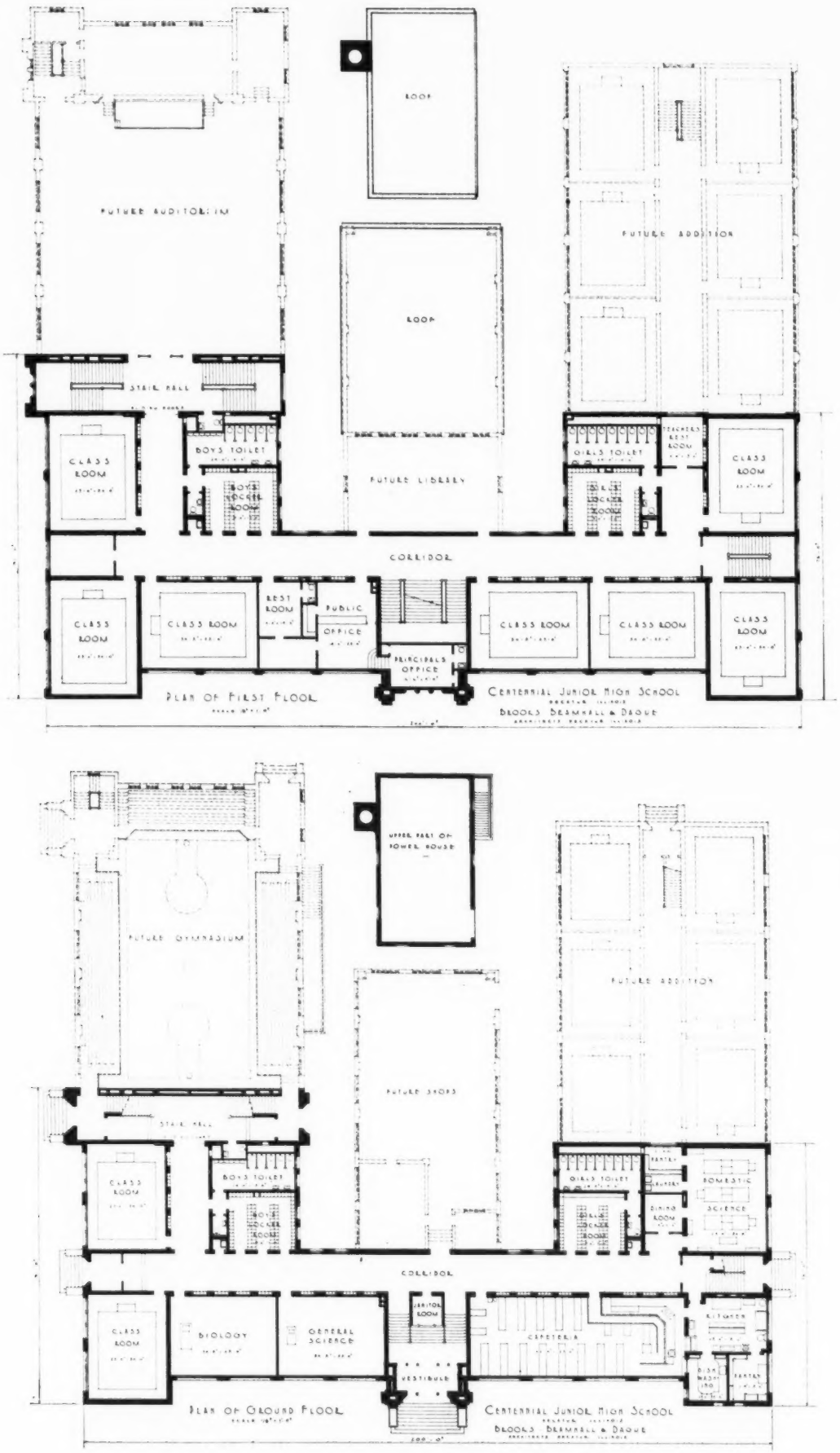
The Centennial Junior High School

The finest and latest of Decatur's junior high schools is the Centennial Junior High School, completed in January, 1930, and occupied with the beginning of the second semester. This building is also planned with considerable extension in mind. It contains at present only classrooms, shops, science rooms, and a cafeteria, the last mentioned serving currently for assembly purposes. The auditorium and the gymnasium will be erected at the end of one wing where they will be equipped with separate entrance stair halls and will be readily accessible to the general public. The shops and the library are planned to be erected in a central wing, immediately back of the main entrance.



ENTRANCE DETAILS, CENTENNIAL JUNIOR HIGH SCHOOL, DECATUR, ILLINOIS
Brooks, Bramhall and Dague, Architects, Decatur, Illinois


UPPER PART OF AUDITORIUM
FUTURE BALCONY
STAIR HALL
CLASS ROOM
BOYS TOILET
LOCKER ROOMS
LOCKER ROOMS
LOCKER ROOMS



FLOOR PLANS OF THE CENTENNIAL JUNIOR HIGH SCHOOL, DECATUR, ILLINOIS
Brooks, Bramhall and Dague, Architects, Decatur, Illinois

It is notable that the board of education carried on its program in association with one firm of architects. Messrs. Brooks, Bramhall & Dague, architects for the three buildings, worked closely with the superintendent of schools and the other school executives, as well as with the board of education, in developing the entire program. Much of the outstanding success of the program has been due to this close association.

A SCIENTIFIC STUDY OF ACOUSTICS

Although the fundamental principles governing the construction of an acoustically successful auditorium are not new, they are not as yet generally understood by those engaged in such work. In the study summarized in this paper the basic principles are stated and an example is worked out, showing their practical application to the planning of an auditorium, or to the curative treatment of one which has previously proved unsatisfactory. The study which was made by Mr. Paul R. Heyl, senior physicist in charge of the sound laboratory, of the Bureau of Standards at Washington, discusses the usual defects of auditoriums, explains the calculation of the reverberation time, and outlines the factors necessary for good acoustics in the planning of an auditorium.

Usual Defects of Auditoriums

In the matter of defects of auditoriums, Mr. Heyl points out that the usual defects encountered are three—echo, dead spots, and reverberation. In the usual sense of the term, echo means a definite or articulate repetition of a sound after an interval at least equal to the total duration of the sound that is being repeated while reverberation means a confused or inarticulate prolongation of the sound. Of the two, echo is the more difficult to remove; prevention by foresight in construction, aided by expert advice, is the best plan.

Echo arises by regular reflection of sound from smooth walls, ceilings, or proscenium arches, just as a mirror may reflect a beam of light without scattering it. The lapse of time before an echo is heard is due to the fact that the reflected sound has traveled a longer path than the sound which comes directly from the source.

Generally speaking, says Mr. Heyl, auditoriums are less likely to exhibit troublesome echo when their outlines are rectangular. An instance of trouble which may be caused by curved walls is cited by Watson in the case of the auditorium at the University of Illinois, with an approximately circular floor plan and a hemispherical dome. The best that could be done in the way of correction was only partly satisfactory. Watson regards the complete cure of such a room as hopeless, without the straightening of the walls.

Smooth, hard-finished walls, such as the usual plastered type, are excellent reflectors of sound, and are likely to produce echo. It becomes important, therefore, to break up such surfaces so as to produce irregular distribution of the reflected sound. This is done by coffering in the case of ceilings. The ceiling, and perhaps, the proscenium arch are broken up into depressions about 4 ft. square, containing a succession of steps totaling a depth of, perhaps, 8 or 10 in. An irregular surface of this character breaks up the deflected sound and distributes it in such a way as to minimize the echo, and in fact, to convert it into reverberations. The size, 4 ft. in diameter, is a compromise between the average wave length of the male and female voices.

Dead Spots and Sound Foci

Dead spots and sound foci occur as a consequence of echo-producing conditions. Sound travels through the air as a wave of alternate compression and rarefaction, and if a reflected sound wave is retarded by the proper amount it may happen that the compression of the directly transmitted sound and the rarefaction of the reflected sound arrive at the ear at the same time, neutralizing each other's effect and producing a diminution in intensity. The most usual cause of a sound focus, however, is a curved wall or ceiling which concentrates the sound to a focus.

Since dead spots and sound foci arise from the same cause as echo, their removal may be brought about by the same treatment. Some care and experience are necessary in order to locate the particular portion of a room which is responsible for the production of a dead spot. The reflecting portion once found must be treated in such a way as to decrease its power of regular reflection. W. C. Sabine cites an instance, in a theater, where the ceiling, containing a flat oval panel, was the cause of the trouble. In this case, an irregular canopy, oval in plan and slightly larger than the panel, was hung below it with good effect.

A sound produced in a room is reflected back and forth from walls, floor and ceiling, a portion being absorbed at each reflection, until its intensity is so reduced that it becomes inaudible.

If the walls of the room are covered with some sound-absorbent material, such as hair felt or acoustic plaster, a few reflections may suffice to destroy the sound. Such a room is acoustically "dead" and undesirable. A little reverberation is necessary, and the desired amount of reverberation is found to increase with the size of an auditorium.

Excessive reverberation is an evil, because it prolongs unduly each syllable or note of music, causing it to interfere with the next. The ideal conditions for intelligibility of sound are two: Each syllable should die away before the next arrives, which in ordinary speech may be, perhaps, one tenth of a second; and the sound must be loud enough to be heard.

The first of these conditions can always be secured by providing enough sound-absorbing material in the room. For a small auditorium, which can easily be filled by the speaker's voice, this is the most important consideration. Since the intensity of the human voice cannot be much increased, it is necessary to compromise, and to permit longer reverberation in larger rooms.

(Concluded on Page 121)

Davenport's School-Administration Building

The idea of housing the administrative offices of a school system in a building specially designed for that purpose, is gradually gaining ground in this country. Today the greater number of school administrative headquarters are lodged in some schoolhouse or in some downtown office building. Sometimes a discarded schoolhouse located in an older section of the town is chosen. In that case the school authorities must adjust their organization to the structure.

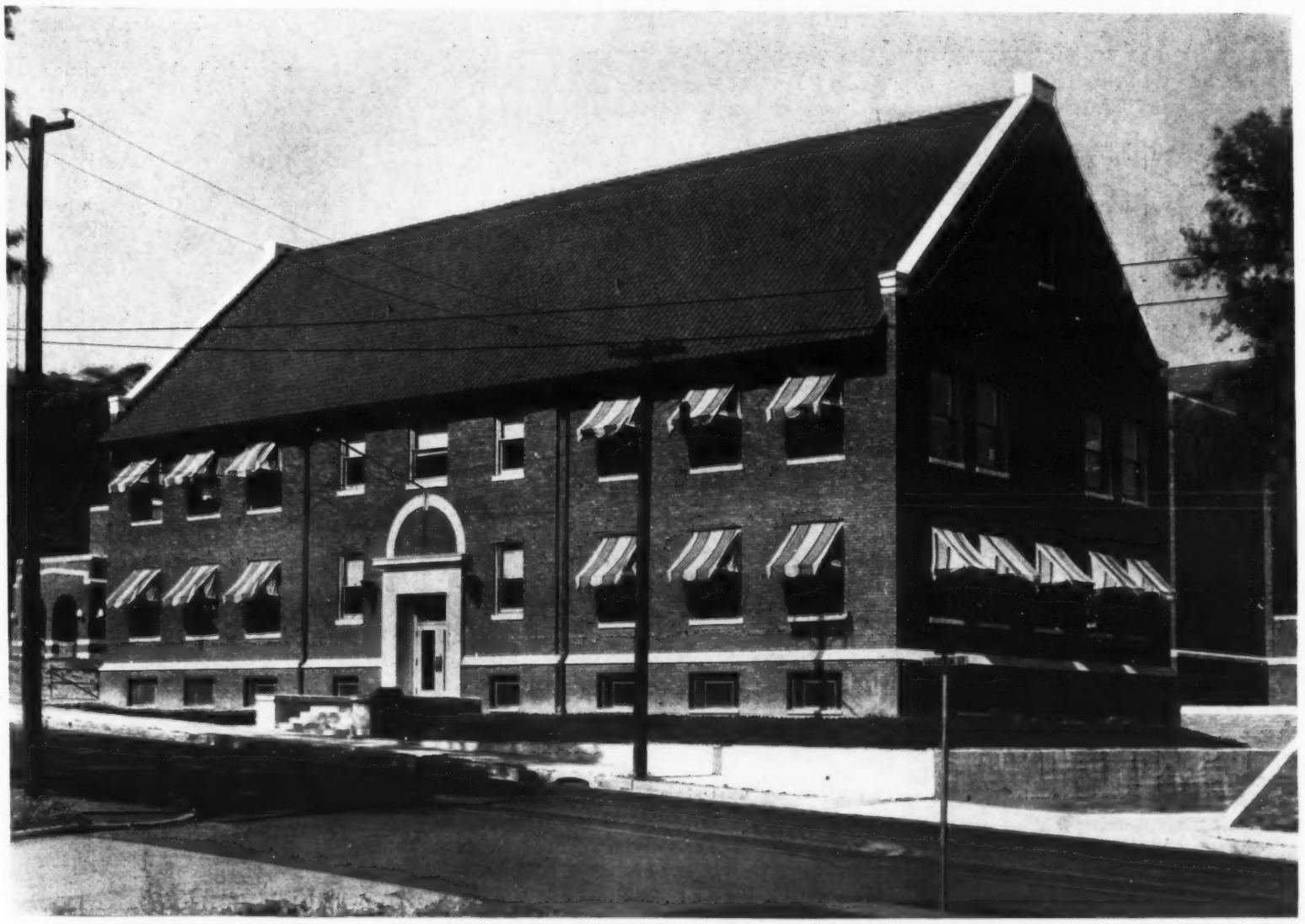
Where rooms are rented in an office building, some layout may be effected which will promise a measure of service, but it does not follow that an ideal situation is effected. Nor can it be assumed that a school headquarters located in the upper floors of an office building is conveniently accessible to those who have legitimate dealings with the school department.

A school administration building specially designed for its purpose, offers a dual advantage in that it facilitates the business of the department. One must be found in the arrangement of the structure and the other in its location.

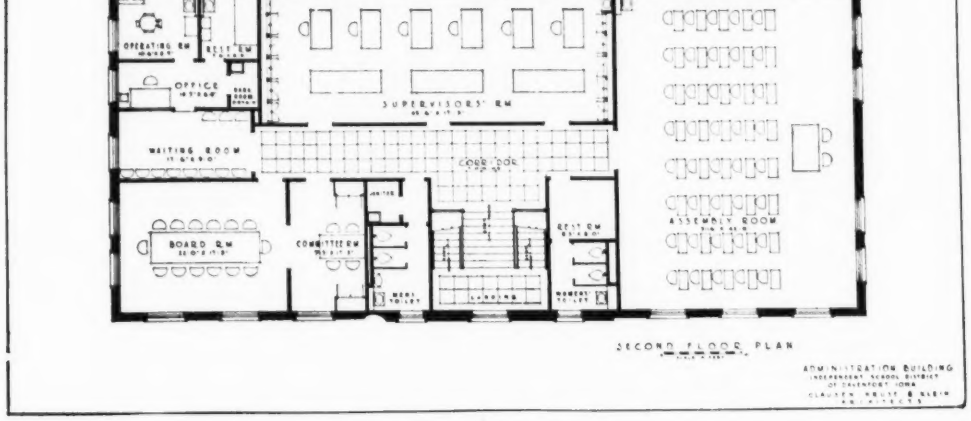
The idea of a separate administration building for a school system, as applied to the larger and medium-size cities, has not in every instance met with unanimous public favor. Where such a project was realized it was in the face of opposition on the part of a portion of the taxpayers. When once constructed and in operation, the economies effected by a centrally located, and well-arranged school administration building, become apparent and opposition usually subsides.

The school authorities of Davenport, Iowa, conceived the plan of providing a separate structure so designed that the business of a

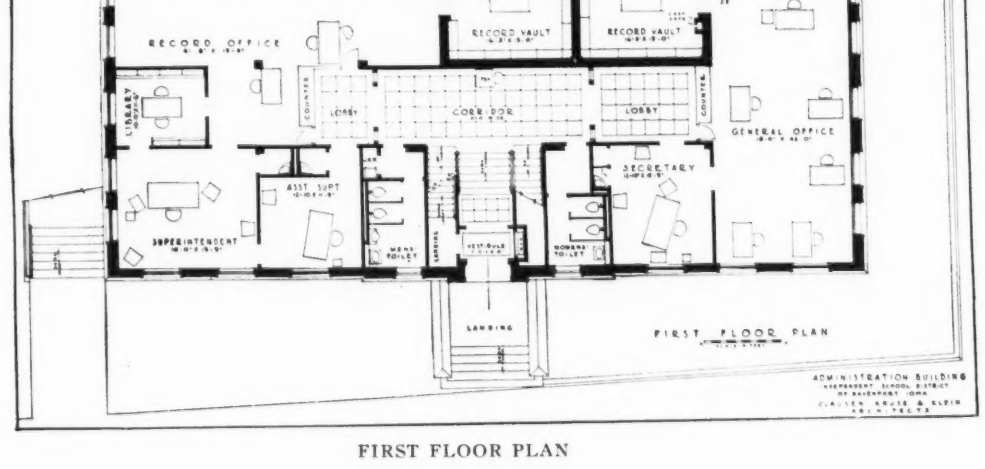
OFFICE OF SUPT. T. H. HARRIS, SCHOOL-ADMINISTRATION BUILDING, DAVENPORT, IOWA
The nerve center of the Davenport school system is necessarily the office of the chief executive, Supt. T. H. Harris. The room is located in the most pleasant corner of the first floor.



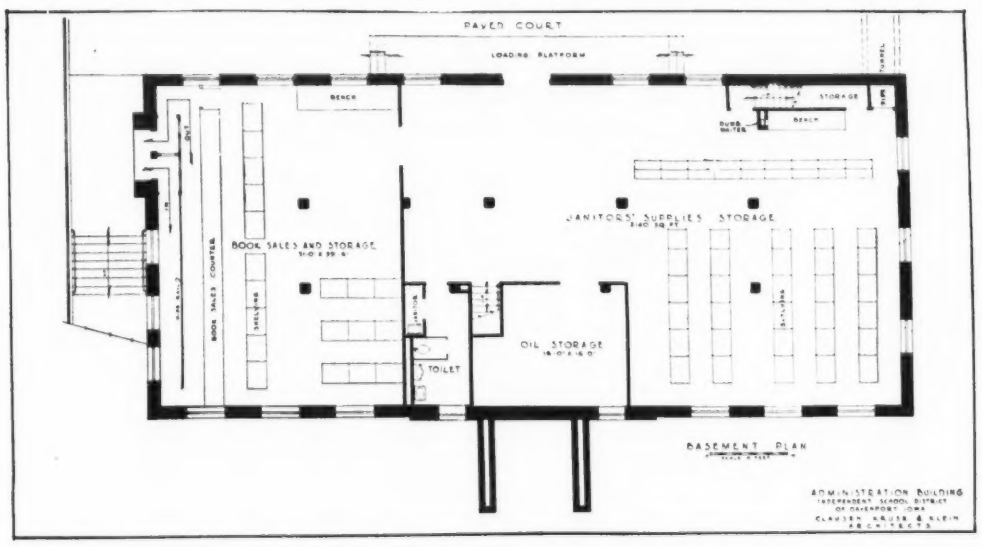
SCHOOL-ADMINISTRATION BUILDING, DAVENPORT, IOWA
Clausen, Kruse and Klein, Architects, Davenport, Iowa



SECOND FLOOR PLAN



FIRST FLOOR PLAN



BASEMENT PLAN, ADMINISTRATION BUILDING, DAVENPORT, IOWA
Clausen, Kruse and Klein, Architects, Davenport, Iowa

school system could be conducted with a maximum of efficiency. It is so located as to be readily accessible to those having dealings with the school administration department. The school interests of that city have assumed a scope and size that made a separate, well-located and properly designed headquarters eminently desirable and practical.

The interest centers in the main upon the arrangement of the building and the utilities provided. Beginning with the first floor it will be noted that general offices are located here. Here, too, the secretary's office is located, together with a large record room and two spacious vaults. On the same floor the superintendent's office and that of his assistant is placed. Attached to these rooms is a small library. The several offices, business and educational, are readily accessible from the first-floor corridor.

The second floor presents an interesting arrangement. Here we find not only the meeting hall of the board of education and committee rooms, but also a moderate-size assembly hall, a supervisors' conference room, and a dental clinic. This floor is ideally suited for conferences such as the educational and business factors must engage in.

The basement space is given up almost wholly to the storage of books and supplies. One part is suited for the distribution service such as book sales counter and the like. The janitor's supplies also are stored here.

The structure is located in the immediate vicinity of the large high-school gymnasium. The exterior design is simple and yet quite attractive. The architects who planned and constructed the building are Clausen, Kruse and Klein, of Davenport.

SECURING 100-PER-CENT TEACHERS

The school officials of Evansville, Ind., frequently receive outside visitors who come to study at first hand the merit system applied to the teaching force of that city. Supt. John O. Chewning holds that it is the oldest merit system now in use in the entire country. It was adopted in 1919 for grade teachers and has now been extended to the high-school staff, principals, and supervisors. He says:

"What has been done is to add a bonus to 100-per-cent success grades, and to work out a technique for the raising or lowering of success grades. Always the idea that success grades must be honest and fair has been emphasized. In fact, this idea of fair and honest treatment in the matter of issuing success grades might be called the heart of the whole busines. Since so much about teaching cannot be other than intangible and subjective. teachers appreciate an attempt to put interpretation of it on a common-sense basis and to make it considered fair by those most immediately concerned.

"Present-day new practices in the technique of handling it that are important are: (1) All lowering or raising of success grades must be with approval of the appropriate supervisor whose name and the date of the change appear on the back of every success-grade card that is changed. (2) Considerable formality surrounds the raising of a teacher to 100 per cent, which must be with the special approval of the superintendent.

"When the principal, after going over, with the teacher, sentence by sentence, every part of the Measurement of Efficiency of Teachers, decides to propose the teacher for the 100-per-cent rating, he arranges for a conference at the public-schools office, at which conference the principal, the teacher concerned, and the appropriate supervisor are present, and the superintendent examines both the supervisor and principal in the presence of the teacher on the teacher's qualification for the 100-per-cent success grade.

"At this conference all six of the paragraphs on the "Measurement of Efficiency" are gone over without regard to previous ratings and when it is certain that the principal and the supervisor are agreed that the candidate really fits the definition of a 100-per-cent teacher, as it is given in the rule book, then the 100-per-cent grade is affirmed by the superintendent. Teachers feel that the examination is rather searching and that the 100-per-cent grade has a real professional value, apart from its money value of $200, because it is awarded after due examinations professionally by peers.

"Without the hearty backing of the board of education any merit system plainly could not succeed, so it is necessary before going any further to call attention to the fact that the Evansville plan owes a great part of its success to the board of education. One example of the part of the board has played will suffice to illustrate. Between four and five years ago, a committee of teachers that was meeting with the board said that a rumor had been current for several years that some principals thought there was a limit to the number of 100-per-cent teachers that a school could have, and thus held success grades down.

"Reply was made for the board to the effect that the board knew nothing of such limitation, but on the other hand favored an increase in the number of 100-per-cent teachers provided only that they were correctly graded. The more truly 100-per-cent teachers there were, the better it was for the school system; that the success grades were intended to encourage the growth of teachers in service."

A Budget Minus Guesswork

How Supt. H. H. Eelkema Makes and Sells a Scientific Budget

A large-city school system is usually so completely organized that the formulation of the annual school budget, which is considered the most important business instrument of the school year, usually is placed in trained hands. The plan of building a budget contemplates the essential use of highly technical aids and agencies in school accounting and administration, and enables the school authorities to secure all the facts and data in order to set up a sound financial policy.

Not so with the average small city. The superintendent and the secretary are not always equipped, either by training in accountancy work, or general business experience, to get the proper approach to or the principles underlying a budget system. The failures which attend budgetmaking may be assigned to:

First, a lack of knowledge of the theory and technique of accounting and of building a budget. There is frequently a dilatory or superficial approach, with the result that a lopsided or inflated estimate is evolved.

Second, there is the tendency to permit the budget to become a one-man product. The accountant or secretary may measure the dollar-and-cents factor to the exclusion of the educational objectives to be borne in mind.

Third, if the superintendent is assigned to the task, he may bear in mind the major activity of his office, which is educational and minimize the economic and business phases of the problem.

In the light of these statements, the school budget work of Supt. H. H. Eelkema, of Mankato, Minnesota, assumes some significance. He has not only presented his board with a model fiscal report, but enters with unusual circumspection and completeness into the job of making a budget which will function. In proceeding with this task, he ties together the past financial experience of the schools with the program for the on-coming year. Thus, the member of the board of education is fully informed on every item which is presented in the budget.

Practical Science of Budgetmaking

In order to attain thoroughness and completeness in the budget to be presented to his board of education, Superintendent Eelkema has divided his preliminary budget report into three separate but closely correlated documents. The first of these deals with the fiscal data of the Mankato school system for the year just closing; the second is the budget proper, with an explanation of all its details; and the third is a series of questions and answers designed to justify or "sell" every item of the budget.

In making any budget the experience of the year immediately preceding furnishes the correct foundation for the estimates of the coming year. The cost items representing the major accounts of general control, instruction, operation of plant, etc., together with the prospective increases or decreases due to the employment of new teachers, salary increases due to the operation of the teachers' schedule, the extension and expansion of courses, and the introduction of new work, changes in the debt service, and numerous minor prospective details — all together form the raw material out of which the new budget is developed.

The first document prepared by Mr. Eelkema dealing with the financial operations and the exact status of the school system shows exactly what has been expended for a period of one year to August 1, and includes in parallel columns the previous budget allowance, the actual expenditures, and the balance or overdrafts in each account. Owing to the fact that the laws of Minnesota provide that the school budgets must be made in June, or sixty days in advance of the end of the fiscal year, Mr. Eelkema's report covers ten months and estimates the two remaining months. The Mankato school system has been conducted so carefully that every account for 1929–30 shows a balance, with the exception of debt service, which involves a comparatively small overdraft.

Just here it should be said that Mankato employs the classification of accounts, recommended by the U. S. Office of Education and the National Association of Public-School Business Officials. The headings employed in the division of accounts are: (1) General control, (2) Instruction, (3) Auxiliary agencies, (4) Coördinate activities, (5) Operation of plant, (6) Maintenance of plant, (7) Fixed charges, (8) Debt service, and (9) Capital outlay.

The total budget allowance for 1929–30 was $290,000 and the balance remaining on August 1, 1930, amounted to $27,824.

The Budget Proper

Mr. Eelkema's second document is the budget. His proposals for 1930–31 are for a total expenditure of $280,000. The summary of the preliminary proposal is as follows:

Current Expenditures

1. General control	$ 8,000	
2. Instruction	161,050	
3. Auxiliary agencies	1,850	
4. Coördinate activities	3,650	
5. Operation of plant	36,700	
6. Maintenance of plant	3,600	
7. Fixed charges	2,000	
		$216,850
8. Debt service		56,000
9. Capital outlay		7,150
		$280,000
Total including payment to the state		$293,000

In order that the board of education may understand that this proposed budget is based on sound practice, Mr. Eelkema shows in parallel columns, the distribution of the budget and the average distribution of budgets for cities with a population range of from 10,000 to 30,000, as reported by the U. S. Office of Education for the year 1928:

Distribution of Costs

	Distribution Proposed Budget		*Distribution Cities 10,000 to 30,000 Population*
General control	3.69	per cent	3.7 per cent
Instruction	74.22		75.
Auxiliary agencies	.85	(includes both	3.4
Coördinate activities	1.72	auxiliary and coörd.)	
Operation of plant	16.92		11.8
Maintenance of plant	1.66		4.4
Fixed charges	.92		1.7
	99.98		100.0

Before presenting the classified and detailed statement covering every phase of the proposed costs by activity, by schools, by teachers to be employed, by materials to be bought, Mr. Eelkema explains the reasons for the distribution of the costs. Finally he closes the document by a complete analysis of the sources of revenue, including the local tax levy and the state apportionment. Thus, for the year to come he requests that the tax levy for $230,000 be called for, this to be distributed as follows:

Thirty-eight per cent of the 1930 levy to be paid in fiscal year ending July 31, 1931	$106,000
Receipts from sources other than general levy (very conservative)	49,000
Sixty-two per cent of $231,000 tax levy paid prior to August 1, 1931 (round numbers)	143,000
Total receipts fiscal year ending July 31, 1931	$298,000
Proposed budget	280,000
Balance to surplus	$ 18,000

Budget Questions and Answers

The third and final document which Mr. Eelkema presents is in reality a sales argument for the budget. It is a frank and clear statement in question-and-answer form of the doubts which will naturally arise in the minds of the members of the board of education and of interested citizens. The character of the questions and answers can best be appreciated by the following extracts:

1. Is the final budget adopted at this time? *Ans:* No. The full complete budget is adopted in the fall at which the tax levy is made.

2. What is the purpose of approving preliminary budget? *Ans:* To grant authorization for supplies which should be ordered before the opening of the school year.

3. Are supplies ordered on bid? *Ans:* For the most part they are. In some instances specific items can be obtained from but one firm. Quotations are received before ordering in this instance.

4. Does the superintendent have requisitions on file as to quantities of each item needed? *Ans:* Yes, detailed lists are on file in the office. Those lists are made up by buildings and summarized in the office.

5. Are the prices given exact prices? *Ans:* The prices will vary some when bids are received. The totals given are based upon former prices.

11. What do the amounts for debt service include? *Ans:* It includes payments of $40,000 on principal and $31,000 in interest.

12. If we are paying $71,000 in debt service why is only $56,000 placed in the budget? *Ans:* A separate levy is maintained for the amounts due the state. This is not a part of the general levy made by the board.

13. Under the proposed budget is it necessary to use any of the present sinking fund? *Ans:* No. The sinking fund together with interest earnings will be available for payment on principal.

14. Will debt service charges be higher or lower for 1931–32? *Ans:* The cost should be lower. For example, we have a $200,000 bond issue which becomes optional for payment in the fiscal year 1930–31 and this issue bears 6 per cent. In the 1930–31 budget, interest of $12,000 is provided for. Approximately $100,000 should be available to pay on principal and the balance refunded on the serial-bond-payment plan, and both payment on principal and interest should be much lower.

20. Is the amount provided for teachers' salaries ample to take care of normal growth? *Ans:* It is to be noted that provision is made for a possible extra teacher, for a grade supervisor, and an additional sum for contingencies of $1,025. The $142,993 includes provision for replacement of Miss King. Unless the enrollment shows an increase, I believe that this position can be absorbed. If so, the saving will be approximately $1,500.

22. Is the amount allowed for transportation for the children attending the special school sufficient? *Ans:* Up to June 1, $119.55 was expended for transportation, and a later check of $47.20 to Mr. Willard would bring the amount to $166.75. The amount of $210 provided should provide for contingencies.

23. Is the amount for night school ample? *Ans:* I feel that a tuition charge to cover cost of instruction should be made, except in those classes held for those seeking citizenship. Receipts should offset any increased cost.

24. Why is an amount allowed for medical service under coördinate activities? *Ans:* Before a child can be admitted to the special department the child must undergo a physical examination and this report sent in with our report before we can admit the child and claim state aid.

25. Is the amount for fuel ample? *Ans:* This is based upon cost this year. It should be less for next year with the saving anticipated by the use of stokers. We also should receive better prices upon coal upon a purely competitive bid basis. I understand all coal bids in the past have been at practically the same figure.

26. Is the amount for insurance ample? *Ans:* This is based upon the cost of premiums falling due during the next fiscal year.

30. Why was the amount for clerk reduced to $25 for the next contract? *Ans:* This in line with

(Concluded on Page 114)

The Development of the American School Textbook

Alfred Iverson Branham, Atlanta, Georgia

The story of the American schoolbook has never been completely told. A bit of the story here and a bit there have caught the attention of the people, but only for a fleeting moment. It is true, however, that while the schoolbook's part in molding the destinies of the young people of America has been mainly silent, it has penetrated the inmost recesses of their lives and its importance to them has been immeasurable. From the earliest days of the American republic, the schoolbook has had distinctive characteristics that have placed it far in advance of the schoolbooks of any other nation. Such schoolbooks as The New England Primer, Webster's Blue Back Speller, McGuffey's readers, and others of the early formative period of the republic set the pace, followed by constantly improved books upon every subject taught in the schools, until today the American schoolbook is the most interesting, the most effective, the most beautiful in the world.

The National Society for the Study of Education has a committee on the schoolbook at work, under the chairmanship of Dean J. B. Edmonson, of the University of Michigan, with the purpose of answering the questions frequently asked about the history of the American schoolbook. It is expected that the committee will not only tell who writes the schoolbooks, but how the publishers select schoolbooks from the immense number of manuscripts offered them; who chooses the schoolbooks for the schools; what are the merits, if any, in state adoption of schoolbooks; what are the advantages and disadvantages of free schoolbooks; what amount of money is spent in the United States for schoolbooks; and especially what are the methods, good and bad, used by authors and publishers in the marketing of schoolbooks. Nor should the vagaries of legislation about schoolbooks by many of the states be omitted from the committee's report.

Old-Time Method of Book Selection

At the beginning and for many years thereafter, books used in schools in the United States, as a rule, were selected by the teachers without suggestion from any superior authority. The books were simple in character, an example being The New England Primer, which in type, illustrations, contents, and fitness for the work did not at all resemble the modern primer, or first reader. The spelling books in use were generally composed of mere lists of words, beginning, usually with words of one syllable and proceeding to words of two, three, and four syllables, and sometimes more.

These spelling books were soon superseded by such spellers as Webster's Elementary Spelling Book, known as The Blue Back Speller, and Worcester's Comprehensive Spelling Book, and half a dozen others of like character. The English grammars were modeled upon Latin grammars, and, in some instances, the rules of syntax were exact translations of rules of syntax employed in Latin grammars. Examples of such English grammars are those paragons of their day, Smith's English grammars.

Previous to 1880, there were at least a dozen other English grammars in use, all of them similar to Smith's grammars. Among the arithmetics that superseded the arithmetics in use at the beginning were Ray's arithmetics, Robinson's arithmetics, Davies' arithmetics, and eight or ten others which represented no departure from the old models.

The outstanding series of readers in use in the earlier period were McGuffey's Eclectic readers. In many homes, the McGuffey Readers were given as high a place as teachers of manners and morals as the Bible itself. Among the most popular United States histories previous to 1880 were Quackenbos' United States History, Swinton's School History of the United States, and Barnes's Brief History of the United States. Among the most popular geographies were the Cornell Series, the Mitchell Series, and the Monteith Series.

Note. The author who rightly styles himself an "old bookman" has had forty years of experience in the various phases of selling schoolbooks for use in the American schools, private and public, and in American colleges and universities. In the following article, he presents his observations and conclusions on the marketing of schoolbooks, which will be found highly interesting and instructive.—*The Editor.*

It was the custom in American schools in this period to base all teaching upon what were widely known as "the three R's," otherwise called "readin' ritin' and 'rithmetic." Accompanying these subjects were spelling, English, grammar, geography, and United States history.

A few of the schoolbooks in use during the first period survive to this day, among them being Webster's Blue Back Speller, and McGuffey's readers. Of the former, many thousands are still in use. Indeed, it is likely that more than a million of the Blue Back Spellers are sold every year. Some high-grade preparatory schools require the use of this book. Peddlers of all sorts of things buy the Blue Back Speller and sell large numbers of them to their customers in rural districts.

Occasionally the Blue Back Speller appears in a unique and interesting connection. An instance of this sort that attracted attention throughout the United States was the use of the book in a school for adult illiterates in a Georgia town. This school was established in 1912 by a judge of the superior court. It was perhaps the first important effort made in Georgia in the fight against adult illiteracy. The teacher, Judge Frank Park, now dead, conducted the school for three or four years, and the Blue Back Speller and the copy book were his principal aids.

C. V. COURTER

Mr. Courter, who was recently elected superintendent of schools at Dayton, Ohio, to succeed Paul Stetson, was formerly head of the school system at Flint, Mich.

Mr. Courter is a graduate of the Kalamazoo College, and holds advanced degrees given by the Kalamazoo College and Chicago University. Between 1911 and 1922 he was superintendent at Kalkaska and Howell, Michigan. In 1922 he became principal of the high school at Flint, and in 1926 was made superintendent of schools.

During his incumbency at Howell, Mr. Courter was responsible for the carrying out of a school-building program and the reorganization of the school system. He directed the installation of a modern system of school accounting and the revision of the entire program of educational activities. At Flint, he had entire charge of a million-and-a-half-dollar high school and the reorganization of the secondary school program. In the eight years spent at Flint, he directed the reorganization of the junior high schools and the school staff. Under his direction, a senior high school, two junior high schools, four elementary schools, and additions to schools were erected. During his four years as superintendent, the membership of the schools increased approximately 10,000 students.

Another cause of the continued general use of the Blue Back Speller is the practice of wholesale merchants, especially wholesale drygoods merchants, of presenting free of charge to their customers from rural districts and small towns, copies of the book to be given in turn to the customers' patrons as an inducement to trade.

McGuffey's readers are still used in many schools. These famous old books have even become the cause of the organization of societies of adults in various parts of the United States for the purpose of keeping alive the traditions of the fathers.

Making and Selling of Books

The writing, printing, and selling of schoolbooks were quietly conducted from 1840 until 1860, but all of these phases of the publishing business were steadily improved. The number of authors and the number of publishers increased. Competition among publishers in the sale of schoolbooks, however, was without noisy controversy. The number of agents in the field, or "school bookmen," as such agents came to be known, was small; and they carried on business with a pleasing courtesy toward each other and their patrons that made them welcome visitors in the schools and homes of teachers and other school authorities everywhere.

It was the rule that schoolbooks be kept in stock by local bookstores and sold by them to patrons of the schools without any sales machinery other than that of any other retail trade. Occasionally, a schoolbook by a hitherto unknown author was marketed, but most of the schoolbooks used were the product of some thirty publishers, all of whom were favorably regarded throughout the country.

Then came what is known in the North as the Civil War and in the South as The War Between the States. The war caused serious interruption to the work of the schools and colleges, North and South, and there was little activity in the writing, publishing, and sale of schoolbooks in the North, and almost none in the South.

Immediately after the Civil War, there was renewed activity in the work of the schools in all parts of the country, particularly in the North, where there were already well-organized public-school systems. Previous to the Civil War, there had been few public schools in the South, but as early as 1870 state legislatures in the South began to pass laws establishing state public-school systems. The plan of operation of these state systems was the establishment of a centralized state board of education, of which the governor of the state was the president. The executive secretary of the board, known as the state school commissioner, was an educator, either appointed by the governor or elected by the people.

The state boards made rules by which the schools were regulated; held and disbursed funds for the payment of teachers and other expenses, but had nothing to do with the selection of schoolbooks for the schools. Schoolbooks adopted by county boards of education, were confined, at first, to books for elementary grades. The administration of public schools in the southern states during the first few years after the Civil War was rather loose, for county boards of education, and even teachers were permitted to do much as they pleased about the selection and use of schoolbooks.

The two compulsory requirements of county public-school authorities and teachers by state boards of education were enrollment and attendance reports and accounting for the disbursement of school funds. The teachers of high schools were at liberty to select and use whatever books they pleased. The chief reason for such looseness in the operation of public schools in the South was the poverty of the people due to the wreck caused by the Civil War. But, there was a gradual improvement in the public schools in the South, and today there is little difference between plans of operation of Southern public schools and plans of operation of Northern public schools.

Beginning with the year 1870, a strong impetus was given to the writing, publishing, and selling of schoolbooks, North and South. The publishers employed educators of experience and influence as authors, and put in the field a large number of sales agents. These agents visited not only the populous districts, counties, and cities, but even the remotest villages. The majority of these sales agents had themselves been educators of distinction. Many of them were men of great tact and skill in dealing with other people. Some of them were daringly effective as executives and would have been quite as successful in any other business. Among them were no small number that became directors of successful publishing firms and companies, and a few rose to be presidents of such concerns.

Sharp Competition Among Publishers

The impetus given the schoolbook business in 1870, soon developed such sharp competition among the publishers that all sorts of schemes for increasing sales arose. A few of the more conservative publishers refused to enter into these schemes, but many others were swept into the current of wild competition, yielding to the pressure brought to bear upon them by their representatives in the field.

It was a common practice for teachers in important schools at strategic centers to be employed and paid by field agents to aid in getting the books represented by such agents adopted. Of course, such transactions were kept secret. The saving clause in these transactions so far as the patrons and the pupils of the schools were concerned was that, with occasional exceptions, any schoolbook offered by a publisher was good and suited to its purpose.

From 1870 until 1880 and later, competition among publishers became so keen and so expensive that it was a very real menace to their prosperity. Perhaps the practice of what was known as "free exchange" of schoolbooks was the leading contributing cause that toward the end of the 80's forced a number of noted publishers to go out of business. "Free exchange" of schoolbooks was simply the giving, without pay, of new books, not in use, in exchange for old books in use. For instance, if a new series of readers was adopted in place of an old series, a sufficient number of the new readers would be given without charge to take the place of the superseded readers, the displaced books being taken over by the publisher of the new series.

During the period of wild competition, the "free exchange" plan gave rise to many "tricks" to get business, some of which were amusing, and some of them not unmixed with scandal. Following is an example:

The year was 1878. The scene was the largest room of the courthouse of a densely populated county of one of the greatest states of the Union. The county board of education, composed of five members, and the county school commissioner sat in solemn conclave upon the judge's rostrum. The county school commissioner arose and said:

"Gentlemen of the board of education, the principal of one of our schools has sent me a communication in which he expresses the desire to address you about a matter he says is of greatest interest to the people of our county. He is just outside of this room awaiting your pleasure." Members of the board agreed to hear the principal, and he was invited to come in and speak to the board forthwith.

FRANK T. VASEY,
Superintendent of Schools-Elect,
Springfield, Illinois

The board of education of Springfield, Illinois, cast its eyes over a wide horizon in search of a school superintendent. It spotted a man in Mason City, Iowa, who had an outstanding record as a school administrator. That man was Frank T. Vasey. He was born in 1876 at Taylorville, Illinois, and was raised in Nebraska. He holds several university degrees. He began his career in 1898 as teacher in a rural school, became a school principal in 1901, and superintendent in 1906. He served in the latter capacity at Tarkio, Missouri; Alba, Charles City, and Mason City, Iowa. His record in Mason City, where he remained for twelve years, is a brilliant one. An Iowa editor says: "Mason City's loss is Springfield's gain."

How an Adoption was Changed

The principal, a young fellow just out of college, shook hands with each member of the board and the county commissioner, and then spoke as follows:

"Gentlemen, I thank you for permitting me to address you today, but I am sure that when you have heard what I have to say you will thank me for calling your attention to a very serious matter. At the last meeting of your board, you adopted for use in all the public schools of this county a series of readers, recently published. I have been told that when these readers were adopted only the agent of the concern that publishes them was present, no agent of any other publisher having been notified of the pending adoption.

"The schools of the county opened two weeks ago, and these new readers were purchased by pupils in all of the schools from the primary grade through the seventh, and are now in use. In the schools of which I am principal these same readers were introduced. Quite recently, I had an opportunity to examine them for the first time. I read with care each book of the series, beginning with the primer. I did not omit a single sentence. I read, not only with a view to ascertaining the pedagogical value of the books, but I also wanted to know what ethical influences they might have upon the young people who use them.

"When my examination of the books was finished I was in a state of bewilderment as to what the author meant by one notable omission. Nowhere in any of the books was the word God mentioned, and nowhere was there a selection from the Bible, not even a hint of the existence of the Great Being, Maker and Ruler of the Universe! Our schools are public schools, organized and operated according to law; but the people of this county are God-fearing people, all of them members of some orthodox church.

"I felt that when they discovered such books as these readers were being used in the schools by their children they would be distressed and outraged beyond measure. I asked a friend of mine, who is in the schoolbook business, for information about the author of the readers, and I was quickly told that the author had no connection with any church but was believed to be an atheist and an infidel. Now, gentlemen, what are you going to do?"

Consternation prevailed among the members of the board, which they manifested in manner, but not in speech. The county school commissioner told the board that he had relied upon the judgment of a friend when he recommended to the board the adoption of the readers; that he had not given the books a very close examination, but he said that as the books were in use, and paid for by the pupils themselves, he did not know what could be done.

At this point the principal arose and addressed the board again. He said:

"Gentlemen, I am reasonably sure that I can secure from a friend of mine who is in the schoolbook business a supply of readers of orthodox character so far as God and the Bible are concerned to take the places of the objectionable readers; and I am also reasonably sure that my friend will turn over to me all the readers necessary to take the places of the objectionable books free of any charge whatever."

The board and the county school commissioner lost no time in authorizing the principal to approach his friend who was in the schoolbook business and if successful to take charge, himself, of replacing the objectionable books with others that were orthodox in matters of religious training.

One week later the principal, with funds furnished him by his friend who was in the schoolbook business, hired three two-horse wagons, loaded each with the readers that were to take the places of the discarded series, and, within a few days, everyone of the objectionable books was taken out of the hands of the pupils in the schools and a new reader put in its place without cost to the pupils or patrons.

The cost of this transaction to the publishers of the substituted series of readers was more than a thousand dollars.

The Free Exchange Evil

"Free exchange" of schoolbooks was not the only expense of the publishers that reduced their profits. The sale of schoolbooks is one of perhaps three important lines of business that must give, without charge, samples of their products to prospective purchasers. In the case of the publishers the expense of giving to possible purchasers free sample books, even under the improved conditions of the present, is quite heavy; but previous to 1900 this expense was so large as to be a serious burden.

There seems to be no escape from the practice of distributing free samples of schoolbooks, because it is not likely that a teacher, or any other school official charged with the adoption of schoolbooks, would make a selection without first carefully examining them; and to do this the person concerned feels under no obligation to buy the sample books. The practice continues, therefore, of giving free sample copies to teachers and members of boards of education that adopt schoolbooks, though not to such an unbounded extent as formerly.

"Free exchange" of schoolbooks has almost entirely ceased. But new books given in exchange for displaced books are usually sold at a reduced rate, commonly called the "exchange price." At present, three prices control in the sale of schoolbooks; net wholesale price, exchange rate, and retail price.

In the latter half of the decade from 1880 until 1890, conservative publishers of schoolbooks were casting about to find methods of relief from the prevailing ruinous competition. Publishing concerns, manufacturing and selling schoolbooks, had largely increased in numbers. By 1890, there were more than a hundred such publishers, and the number of different schoolbooks issued was close to ten thousand, and

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School-Building-Construction Economies

School-Board Business Administration

Article VI—Part 3

George F. Womrath, Minneapolis, Minnesota

10. *Instead of costly onyx and marble interior trim, and mosaic and tile dadoes, why not use wood trim and plaster?*

It is an easy matter to spend money for beautiful, ornamental trim; but it is mighty hard to save money and still insure beauty in design and materials. Not infrequently the extravagant ideas of board members place the superintendent and architect in a most difficult position in their efforts to economize.

No criticism can be successfully brought against the superintendent and architect who prepare plans for a new schoolhouse embodying the simplest types of substantial construction and ornamentation without sacrificing artistic beauty and durability.

In a school building filled with irresponsible youth, the use of materials which will withstand the onslaughts of jackknife and pencil artists is a phase of the construction problem which is often overlooked. A child likes to lean against the wall or to stand with one leg crooked and a foot braced against the dado. While this may be properly a matter requiring administrative attention, it is also a reason why corridor dadoes should be of hard-surfaced brick or tile, or some other hard material which can be easily washed.

11. *Will the omission of expensive marble toilet and shower stalls, and the substitution of slate, cement, or other suitable but less-expensive material be a worth-while economy?*

It is the growing practice to eliminate marble in toilet and shower rooms.

Wood and other materials of an absorbent nature should not be used in any room where there is a great amount of moisture, or where immaculate cleanliness is demanded and frequent scouring required to prevent insanitation. The original low cost of wood construction in all such locations is offset many times by the subsequent high cost of upkeep.

Cement and metal partition slabs between toilet stalls and in shower rooms are good-looking, sanitary, durable, less likely to be marked and cut by pupils. They are easily repaired, and their use is attended with low maintenance cost.

Shower- and toilet-stall partitions should be of rugged construction and of a material that cannot be readily cut, scratched, dented, or marked; or when marred can be easily repaired. Material that will rust and that requires frequent painting should be avoided.

12. *Compare the appearance and cost of highly ornamented chimneys with straight, plain shafts, and decide which shall be used.*

In these days when chimneys on school buildings are no longer looked upon by architects as disfigurements, these shafts have become the objects of special architectural study. When confined to simple and dignified lines they can be made beautiful and attractive.

Every experienced architect should have a complete library containing pictures and illustrations showing types and kinds of structural features of a building, including chimneys. The architect should show the board members and the superintendent some of these illustrations and pictures, and permit them to make their selection. Albert Kahn, one of the world's greatest architects, said: "I listened to what people said they wanted and gave it to them." Therein lies his wonderful success.

Chimneys with steps and jogs in them soon become dirty and unsightly wherever these steps and jogs occur. Costly ornamental designs are often built into a chimney only too soon become obliterated by soot and dirt, especially if these designs are near the top of the chimney.

A poorly constructed chimney is a perpetual cause of maintenance expenditure: a badly designed chimney results in high heating costs and often develops into smoke nuisance.

It is better to spend all available money for proper interior chimney construction than to spend it on exterior ornamentation. The inside of the chimney should be perfectly straight, and the area of the top should be the same or, preferably, slightly less than the area at the bottom, for the reason that as the gases ascend they cool and contract and require less area for discharge at the top of the chimney than they required at the bottom when leaving the breeching. If the stack is larger at the top than at the bottom the draft is destroyed by the air rushing down the stack and establishing cross currents in the stack. This results in chimneys which smoke badly. If in order to maintain a straight-sided chimney on the outside, the stepping-down is done on the inside, this but adds to the inefficiency of the stack and increases its tendency to smoke.

13. *Has all irregular and fancy exterior design, resulting in uneconomical interior space arrangement, been eliminated?*

A careful study should be made of the plans for a new school building to discover all places where space may be gained, without making any noticeable change in the exterior design, but which may result in gaining valuable classroom space inside the building.

Regularity in exterior design and lines almost invariably results in a satisfactory interior arrangement.

Bays and alcoves have often been straightened out and valuable space gained inside the building. On the other hand, after the interior floor space has been satisfactorily laid out, there could be no objection, except upon the basis of increased cost, to the introduction of bays and alcoves if such are desired.

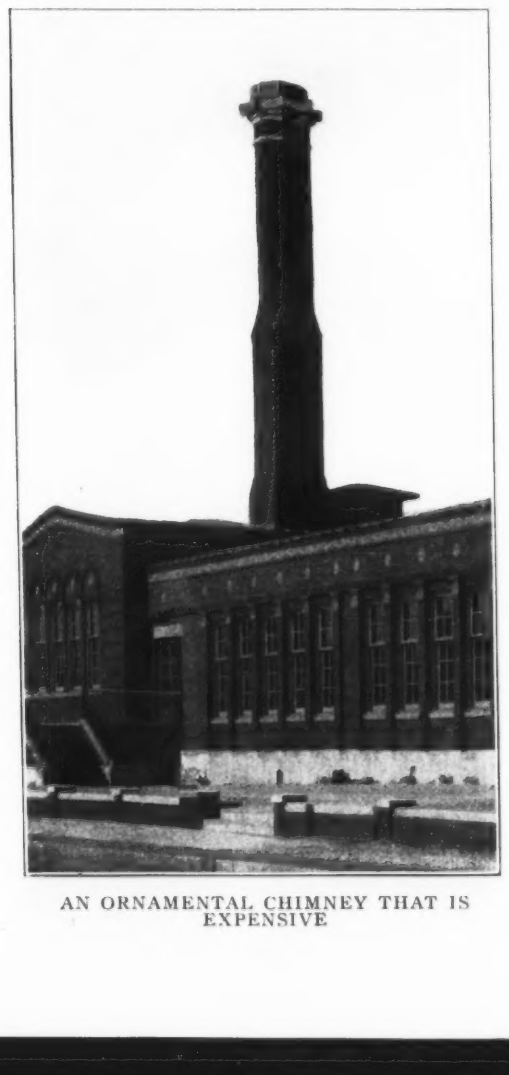
14. *Unusual and special features of construction require the use of specially fabricated steel, or specially designed beams and forms. Which of such features should be eliminated?*

The use of standard stock materials and designs results in large economies. Specially fabricated steel adds very considerably to the cost of a building.

The only places where the use of expensive, specially fabricated steel is justifiable are for balconies in auditoriums, in order to avoid the use of columns under the balconies, which would reduce the seating capacity and impair the visibility of the stage from the seats back of the columns: in gymnasiums, when classrooms are to be built over them; and in special study rooms, like places. These are some of the many places where the architect and the members of the school board and the superintendent should closely coöperate. The board and superintendent should be the ones to make the final decision whether columns should be omitted or not.

It is better to save money by eliminating columns on the outside of the building, in order to eliminate columns in auditoriums and other large rooms inside the building, than to put columns inside the building in order to save money to be spent on columns on the outside of the building. To eliminate two columns under a balcony in an auditorium and support the balcony with a single-steel girder of specially fabri-

(Continued on Page 114)



AN ORNAMENTAL CHIMNEY THAT IS EXPENSIVE

PLAIN BUT NOT UGLY CHIMNEYS ARE POSSIBLE

Bond Interest Rates Lower

Harold F. Clark, Ph. D., New York

School-bond interest rates continue downward during the month of June. The net interest rate on all school bonds sold during the month was 4.47 per cent. This compares with a rate of 4.55 per cent during the month of May. The decrease during the past month amounted to .08 per cent. This drop in interest rate brings interest rates to the lowest level of the current downward movement. As was pointed out last month, even though the decrease has been going on for an entire year, bonds are still not selling at an unduly low interest rate. A year ago the average of all school bonds sold was 5 per cent. For the past twelve months the general tendency has been toward lower levels. There are reasons to think that the movement is not over.

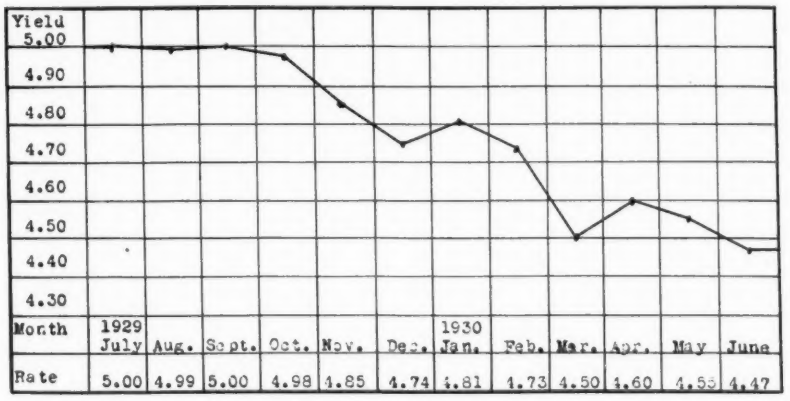


TABLE I. AVERAGE YIELD OF ALL SCHOOL BONDS SOLD DURING THE MONTH

Barring unforseen changes in the business situation there is every reason to think school-bond interest rates will move to even lower levels over a period of months. By this we do not mean that every month will necessarily show a decrease over the month preceding. On the average, however, the trend of school-bond interest rates should be downward.

Money has been available at phenomenally low levels during the past months in New York. The New York Federal Reserve Bank dropped its rediscount rate from 3 per cent to 2½ per cent. This is the lowest rate that has ever existed during the entire history of the Federal Reserve System. What is more striking, it marks the sixth reduction in the bank rate since last October. Last October the New York bank rate was 6 per cent, now it is 2½ per cent. In other words, the rate is now less than ½ of what it was nine months ago.

TABLE II
Amounts and Yields of Bond Issues[2]

1. School bonds sold during the month of May	$ 19,476,000
2. All municipal securities sold during year (to date)	754,000,000
3. All school bonds outstanding (estimated)	3,272,000,000
4. Average yield of all school bonds outstanding (estimated)	4.65%
5. Yield of school bonds of ten large cities	4.34%
6. Yield of United States long-term bonds (quotation the middle of June)	3.24%

[2]The monthly yield of school bonds does not include all the bonds issued in the month, due to the difficulty of obtaining the yield on some of the issues.

This ease in money rates has shown itself in many ways. The call-loan rate at times reached a level of 1½ per cent, the lowest level since the war. Perhaps what is of more interest to school boards is the fact that a great many cities borrowed money for short periods for less than 2½ per cent. One city borrowed money on a discount basis of 2.27 per cent. This is a surprising change from a year ago when cities were paying 6 and 7 per cent for short-term loans. In other words, now is an unusually good time to borrow money for short periods.

Any school board that needs money for building purposes and can use short-term loans would doubtless not make a mistake in using them. This is particularly true if a small part of the money is all that is needed for some time. Loans could be used to cover the exact amount needed and later the entire amount could be covered by the bond issue. School boards should watch the bond market very carefully during the next few months, as this period is likely to provide unusually favorable opportunities for issuing bonds. If short-term notes were issued during the period of high money, they should be reissued as soon as possible, either in the form of short-term loans or else bond issues. Unless there is some radical change in the business situation, either a drastic tightening of credit or a great demand by business for credit, interest rates are not likely to move higher. In other words, there is no urgent necessity for issuing bonds immediately.

[1]Copyright by Harold F. Clark.

TABLE III
Bond Sales and Rates[3]

Year	Bond Sales: Schools	Municipal	All Public and Private	Year	Average Rates: Municipal
1929	$230,000,000[4]	$1,432,000,000[4]	$10,194,000,000[4]	1929	4.67[4]
1928	218,000,000	1,414,000,000	8,050,000,000	1928	4.45
1927	266,000,000	1,509,000,000	7,776,000,000	1927	4.49
1926	260,000,000	1,365,000,000	6,344,000,000	1926	4.61
1925	323,000,000	1,399,000,000	6,223,000,000	1925	4.58
1924	288,000,000	1,398,000,000	5,593,000,000	1924	4.26
1923	206,000,000	1,063,000,000	4,303,000,000	1923	4.76
1922	237,000,000	1,101,000,000	4,313,000,000	1922	4.81
1921	215,000,000	1,208,000,000	3,576,000,000	1921	5.18
1920	130,000,000	683,000,000	3,634,000,000	1920	5.12
1919	103,000,000	691,000,000	3,588,000,000	1919	5.04
1918	41,000,000	296,000,000	14,368,000,000	1918	4.90
1917	60,000,000	451,000,000	9,984,000,000	1917	4.58
1916	70,000,000	457,000,000	5,032,000,000	1916	4.18
1915	81,000,000	498,000,000	5,275,000,000	1915	4.58
1914	42,000,000	320,000,000	2,400,000,000	1914	4.38

[3]By special permission, based upon sales reported by the Commercial and Financial Chronicle. [4]Not final.

The total of new security issues has been at approximately the same level as last year. This, of course, has tended to retard improvement in bond prices. If there is any let-up in the rate of issuing new bonds, interest rates should move to very decided lower levels. This point should be carefully watched by anyone interested in issuing bonds in the next few months. One of the first estimates of security issues during the first six months placed the total at approximately four billion dollars. This is really a very large amount and any falling off would immediately be reflected in ability to sell bonds at lower interest rates.

TABLE IV
Average Yield of Long-Term Federal Government Bonds[5]

Past Twelve Months: 1930	Rate %	Past Six Years: Year	Rate %
July	3.37[6]	1928	3.437
June	3.38[6]	1927	3.464
May	3.41	1926	3.544
April	3.46	1925	3.797
March	3.40	1924	4.010
Feb.	3.50	1923	4.298
Jan.	3.51		
1929			
Dec.	3.46		
Nov.	3.45		
Oct.	3.67		
Sept.	3.70		
Aug.	3.72		

[5]Taken from Federal Reserve Bulletin. [6]Not final.

TABLE V
Security Prices and Yields[7]

Date	Average Price of 406 Stocks	Average Price of 60 Bonds	Average Yield on 60 High-Grade Bonds
1930			
July	145.4[8]	98.2[8]	4.52[8]
June	152.8[8]	98.1[8]	4.53[8]
May	170.5	97.9	4.54
April	181.0	97.6	4.56
March	172.4	97.8	4.55
February	166.5	96.4	4.65
January	156.3	96.5	4.64
1929			
December	153.8	96.5	4.64
November	151.1	95.7	4.70
October	201.7	95.1	4.73
September	225.2	94.8	4.76
August	218.1	95.0	4.74

[7]As reported by Standard Statistics Company, Inc. Used by special permission. 1926 average = 100. [8]Not final.

The total school-bond sales during the month of June were $19,476,000. This compares very favorably with the amount issued during previous years.

Table IV shows that the interest rates on Federal bonds continues to decline. On several different days in June various government issues reached new low interest levels for the current movement. Judging from the reception of short-term financing of the Federal Government, interest rates on government bonds will move to still lower levels.

Table V shows that stock prices suffered a drastic fall during the month of June. Along with this decrease of stock prices has gone a great reduction in brokers' loans. If this movement continues, it in turn should benefit bond prices. The price of stocks approached the low level of last November. The average price of bonds continues to rise. This in turn, of course, means a lower yield.

TABLE VI
Revised Index Numbers of Wholesale Prices[9]

Past Twelve Months: Month	All Commodities	Building Materials	Past Six Years: Year	All Commodities	Building Materials
July	88.7[10]	92.6[10]	1928	97.7	93.7
June	88.9[10]	92.7[10]	1927	95.4	93.3
May	89.1	92.9	1926	100.0	100.0
April	90.7	94.7	1925	103.5	101.7
Mar.	90.8	95.4	1924	98.1	102.3
Feb.	92.1	95.7	1923	100.6	108.7
Jan.	93.4	96.2			
1929					
Dec.	94.2	96.2			
Nov.	94.4	96.0			
Oct.	96.3	97.8			
Sept.	97.5	97.5			
Aug.	97.7	96.7			

[9]United States Bureau of Labor Statistics, 1926 = 100. [10]Not final.

Table VI shows that commodity prices continue to decline. This is one of the items that is worrying business leaders as much as almost anything else. Obviously as long as people expect still lower prices they hesitate to enter the market. Within the short space of a year we have had a fall of almost 10 per cent in the price of all commodities. School boards and school superintendents should watch very carefully these price indexes and judge their buying programs accordingly. The rate of decrease in the decline of prices is slowing up but there is no evidence as yet that prices have reached bottom. For this reason school boards need not be in any undue hurry about buying most materials.

THE AMERICAN
School Board Journal
EDITORS:
WM. GEO. BRUCE WM. C. BRUCE

The Prestige of School Systems at Home and Elsewhere

THERE are estimates and values which the educational world places upon this, that, or the other community. The question how certain large cities measure up on educational achievements may be asked, but comparative measurements accurately computed are difficult.

What is more interesting is to find that while a certain school system enjoys prestige in the country at large it is decried at home. A school superintendent may loom up as an educational giant among his fellow educators while his home town may regard him as a harmless ninespot.

There is, for instance, the school system of Detroit. It has done so many splendid things in the direction of progressive school administration that the educators of the land turn their attention to that city. In Detroit you find a great schoolmaster in charge. He commands the respect of the school world of the United States.

But if one were to believe the newspapers of Detroit, the impression would be warranted that the school authorities of that city consisted of a band of highway robbers who ought to be locked up.

A few years ago the city of Denver, then under educational leadership that commanded the highest respect throughout the country, found itself in a turmoil. The superintendent and board of education very properly promoted a much-needed school-administration building. The newspapers attacked the school authorities in a manner that threw a cloud upon their honor, their efficiency, and their purposes. In brief, there was a wide difference between the outside prestige and home-town estimate.

Minneapolis has just brought to its service a high-class educator in the capacity of school superintendent. And yet there are rumblings that he is not all that was bargained for. The fact is that the school superintendent is all that he should be, but the town does not appreciate that fact.

Boston maintains an efficient school system. It always has had at the head of its school system an educational leader of exceptional ability. Its school board is made up of the finest citizenship. But look at the Boston newspapers and things are going terribly wrong. The prestige which Boston's school system enjoys in this broad land counts for nothing at home.

New York City offers another example. Its board of education consists of exceptional men and women. The man chosen as the educational leader of the greatest city-school system in the world is an educational leader of the highest order. The mayor of the city has protected the school system against political interference. The school system is training a million children and doing the job with a marvelous efficiency. And yet there are those in New York who cry out loud to the effect that the school system is riddled with politics.

There are fortunately a number of large cities where local appreciation measures up reasonably with outside prestige. Cities like Philadelphia, Pittsburgh, Cleveland, Cincinnati and others, have kept their schools under high-class educational leadership and have fully appreciated their good fortune.

The city of Chicago has been unfortunate. It has managed somehow to get good school superintendents and when they failed to bend to political pressure has decapitated them. The trouble has been with a politically dominated board of education, and not with the educational leadership.

In Indianapolis the administration of the schools did not go right, and the town knew it. After years of suffering a clean-up followed. A good board of education has been created. An educator of national fame has now been placed in charge of the schools. At no time was the citizenship of Indianapolis unconscious of the fact that her school affairs had been slipping.

It cannot be assumed that the citizenship must acquiesce to everything a board of education says, and its executives do, or that the press applaud all the departures engaged in by the school system. An animated difference of opinion, openly and frankly debated, can only lead to wholesome results. Friendly and helpful criticism has its values.

It follows, nevertheless, that local contention is frequently carried to a point where the perspective of the whole is lost. Minor shortcomings are enlarged to a point where they obscure the merits of the school system in its entirety, or where they seek to belittle an educational leader of unquestioned force and strength.

Surely, there is a difference in the prestige which American cities enjoy in the educational world and the estimate which the local community places upon such prestige.

The Modern Conception of Superintendency Selection

THE tendency on the part of a board of education to cast about over a wide range of territory in the selection of a school superintendent has again been manifested this year. A few years ago we noted the long cross-country calls which came to educators when a vacancy was to be filled, where the board of education set about to find the highest talent obtainable consistent with the financial ability of the community.

Thus recent months have shown some interesting superintendency changes. The board of education of Minneapolis secured Carroll R. Reed who was located at Bridgeport, Connecticut. Then Indianapolis invited Paul C. Stetson of Dayton, Ohio, to assume the school superintendency of that city. Dayton, Ohio, cast about for a high-class educator and chose C. V. Courter, of Flint, Michigan. Springfield, Illinois, picked up Frank T. Vasey, of Mason City, Iowa, and so on.

In each instance the school authorities, intrusted with the task of selecting a school chief, were actuated with the determination to secure the best man obtainable in the school-administration field. Local clamor had to be resisted. The man who had an unquestioned record to his credit was sought and found.

At the same time it should be mentioned that in the larger cities there have been no changes of note, while in the rural communities the usual crop of shifts from the smaller to the larger has been in progress. In the larger cities, where splendid armies of professional workers are employed, it is also assumed that the exceptional man suited for leadership can be chosen from the local ranks.

It is needless to say that the procedure adopted by the average American city to secure the best school superintendency service wherever it may be found, attests a higher conception of administrative responsibility on the part of modern boards of education, and tends to place popular educational effort upon a more efficient plane of service.

School Administration and Teacher Unemployment

THE economic disturbances, which periodically afflict the country, do not, as a rule, affect in any material degree the scope and momentum of the public-school service. The American youth must be trained for the duties of citizenship during seasons of depression as well as during periods of prosperity. The schools must go on.

In contemplating the fact that teacher unemployment has reached an acute stage in this country, one is prompted to inquire whether this is the direct result of the present economic situation, or whether it may be assigned to other causes.

The answer, it would seem, must be found in a condition which prevailed during a period of prosperity, rather than to the present economic slump. The young teachers who find themselves without positions today entered upon their professional studies several years ago when the country was prosperous.

They were not thrown out of employment because of an industrial depression. The schools, on the whole, have retained their quota of teachers. The fact is that they are graduates of teacher-training schools who have never been employed. Hence, their unemployment is not directly traceable to the country's economic situation.

In the industrial field the depression is due to overproduction, causing unemployment which, in turn, superinduces underconsumption. When we come to consider the teacher market we are dealing wholly with the problem of overproduction. Underconsumption does not enter into the

situation. The crop of teacher graduates is greater than the school field can consistently absorb.

While the law of supply and demand fortunately has not affected to any appreciable degree the teacher salary schedule, it is, nevertheless, the sole determining factor in the matter of employment and unemployment of teacher talent.

The situation will in the natural order of things find its own adjustment. Fewer young men and women will aspire to a career as teachers. The standards of admission to, and graduation from, teachers colleges will be raised. Again, those who are intrusted with the selection of teacher talent will proceed with greater discrimination and will exact higher standards.

Some Considerations on School-Building Programs

THE program idea, as applied to a series of school-building projects designed for use by a given community, has been tested sufficiently to demonstrate its utility. Growing communities have thereby been properly guided not only as to the number of new structures to be planned, but also as to their location and future service.

The test, however, has made more clear the preliminaries to be engaged in the formulation of a building program. It primarily emphasizes the survey as a prerequisite to future plans. What is the present status of the school housing, the ratio of population increase, the trend of residential growth, and the like? The survey is an essential part of the program.

A comprehensive building program contemplating, as it does, future school needs, enables also a clearer understanding of the financial consideration involved. The tax ability of the community becomes a factor. The anticipated revenue must be estimated and the tax pressure must be distributed over a period of years rather than concentrated upon a few.

The census returns, now being made by the Federal Government, are bringing new situations to the fore. There are communities whose population numbers have declined as well as communities showing a substantial increase. But there are trends within communities which must be reckoned with. The tendency to add new homes to the outer rim of a town is frequently accompanied by a decrease of population in the central sections.

While commercial and industrial enterprise may drive the residential population into new sections it follows, too, that the older sections are not always entirely abandoned. Their school buildings must be retained. It is the newer section, however, that requires new school accommodations.

There are those in various parts of the United States who are fully capable of engaging in survey work and in bringing out the essential facts. Frequently a school system has persons in its own employ who are quite capable of entering upon a survey that will enable the authorities to anticipate future needs with reasonable accuracy.

Where the population growth has been quite steady, and where there is promise that the ratio of growth will continue, the planning of a school-building program is not only expedient but highly practical. If there has been waste in constructing school buildings owing to unwise locations or disproportionate units, it has been due to thoughtless procedure.

The many school surveys engaged in have revealed the mistakes of the past to a striking degree, and have taught that the response to immediate expediency, regardless of ultimate utility, may lead to bad bargains. Thus, a school survey means to look before you leap. It primarily ascertains the fact, and enables the planning of a series of school buildings with a proper regard for future needs as well as due consideration for the economies and equities involved.

Boston's Solution of the Nonresident-Teacher Problem

THE most radical school-administrative departure for the year must be credited to Boston, Massachusetts. The school committee of that city has enacted a rule, whereby eventually none but residents of Boston will be employed in the school system.

To be more explicit, it should be explained that the new rule embodies three definite orders. The first provides that, beginning with September, 1931, no person shall be admitted to the local teachers' college who is not a legal resident of Boston. The second provides that, beginning September 1, 1930, no person shall be appointed as substitute or temporary teacher, or as a member of the supervising staff, who is not a legal resident of Boston. The third order is to the effect that after January 1, 1931, no person shall be appointed to any position in the employ of the school system, who is not a legal resident of Boston. The rule is not retroactive. It was passed by a three-to-two vote.

The records of the Boston school show that of 196 principals and directors 74, or 37 per cent, and of 4,300 local teachers 1,400, or 32 per cent, live outside of Boston. These nonresident principals, directors, and teachers draw salaries totaling in excess of $4,000,000. This condition is accounted for in the fact that the suburbs surrounding Boston afford most attractive residential centers.

Chairman Joseph J. Hurley, of the Boston school committee, in a public interview, bases his defense of the new rule upon purely economic reasons. He contends that the professional workers occupy homes in the suburbs, aggregating a value of $1,000,000. If they lived in Boston, the city would enhance its taxable property. He further holds that the Boston taxpayers have the right to demand that the teachers employed reside in the city in which they earn their money.

All this sounds logical and reasonable. There is, however, another side of the question, which deserves the earnest attention of school administrators in all American cities. In discussing the same here, it is not our purpose to lecture the Boston school committee, which consists of a high-class body of citizens capable of managing the school affairs of that city wisely and well. It may, however, be within our province to discuss the new rule in the light of the accepted school-administrative policies as applied in the larger American municipalities. In these, it has become axiomatic that the selection of teacher talent hinges upon professional merit rather than legal residence.

Perhaps, Boston is fortunate enough to obtain the desired type of service within her own borders. If so, the main question, so far as the interests of the school are concerned, is answered. Thus, the Boston school committee may be in a position to approach and solve the nonresident-teacher problem solely upon economic grounds. It is an established fact that the average large city in this country is not so blessed. In order to maintain high standards of efficiency, it places merit above residence. Here the economic considerations necessarily become secondary and minor. Community self-interest, from the standpoint of the dollar mark, begins to smack of provincialism.

The average American city is engaged in commercial, industrial, and financial enterprises whose ramifications extend over a wide range of surrounding territory. As such, it draws its economic sustenance and vitality from the hundreds of smaller communities located within a given radius. No large center of population is so self-sufficient that it can live without outside patronage. The dollars which roll into the larger community for its products and services adds to that payroll and profit which supports the population. Thus, in the aggregate, the smaller units make for the support of the larger. Great commercial and industrial centers are impossible without the patronage of an outside world.

If the tributary units were to meet the dictum, that its professional talent be excluded from the larger unit, by retaliation and counter movement, they could say: "If you can consistently discriminate against our people we can likewise discriminate against yours. If you refuse to employ our teachers, because they chose to make their homes with us, we can refuse to buy your products. The interests of town and country are reciprocal and mutual, but if you adopt the Chinese-wall idea, in matters professional, we can retaliate in matters commercial. We have something at stake as well as you have."

The fact that a large American city, and in this instance, one of the country's foremost cultural centers, has resorted to a drastic rule on the nonresident-teacher problem must be regarded as an immediate outcome of the unemployment situation, rather than an accepted policy in school-administrative procedure. It is a condition rather than a theory, as explained by Chairman Hurley, that prompted the new rule.

There is this to be said, when it comes to the deliberations of local legislative bodies, that in the promulgation of wise and sound policies, a board of education should be the outstanding body. It should not only foster the immediate interests in hand with exceptional fidelity and efficiency, but also set the pace in the adoption of principles and policies, which but contemplate the broader concerns and interrelations of an American people as a whole.

With The N.E.A. in Columbus

L. W. Reese, State Department of Education, Columbus, Ohio

The sixty-eighth annual summer meeting of the National Education Association, held at Columbus, Ohio, June 28 to July 4, was characterized by the number and quality of the educational visitors, the splendid program, and the well-formulated plans of the entertainment committees of the Buckeye State. Plans were made to take care of 20,000 guests, but only 15,000 arrived. This attendance, however, was considered by the N. E. A. officials as "red letter" attendance. Due to Ohio being in the middle west and not near any great or outstanding wonders, educators, when they came to the convention, came for one great purpose and that purpose was to gain just as much inspiration and information as possible from the 100 and more meetings that had for their theme, "Vital Values in Education." The educators who were at the convention really attended the various meetings and general assemblies. However, they were pleasantly surprised with Ohio scenery, Ohio history, Ohio's contribution to national education, and the fine cordial spirit evidenced not alone by Ohio's school folk, but folk from all walks of life, from road worker to highway director, from newsboy to editor, and from least of the civil officers to the governor. Ohio gracefully showed to educators from the 47 states that the "Rainbow comes down in Ohio."

Sutton of Atlanta Elected President

Dr. Willis A. Sutton, the new president of the N.E.A., was elected to the superintendency of the Atlanta public schools in 1921, and still holds this position. Under Dr. Sutton's superintendency the salaries of the teachers have been increased more than 100 per cent, whereas the growth of Atlanta has been about 30 per cent. The greatest increase in efficiency of the schools has been shown in the increase of the personnel of the teachers of the Atlanta school system. Today all applicants for positions as teachers in the Atlanta schools must have a college degree and 18 semester hours in education.

Throughout his entire life, Dr. Sutton has been a teacher, beginning in the public schools at Fredonia, Ala., in 1903. In 1912, he was made president of Northeast Alabama Agricultural Institute at Lineville, Ala. From this work he was called to the public schools of Atlanta, Ga., where he began teaching in the Technological High School. In his address to the board of directors, Dr. Sutton expressed appreciation to the state of Ohio and to Columbus for giving to the N.E.A. "the finest week it has had in all its history."

Joseph Rosier, of Fairmont, W. Va., defeated candidate for the presidency of the association, was elected a member of the executive committee. He pledged his support and the support of his native state to the program to be carried out by the newly elected president. The resignation of H. B. Cooper, as the Mississippi state director of the N.E.A., was accepted, and W. N. Taylor was named to fill the position.

Members of the N.E.A. board of directors voted to hold the 1931 convention of the association in Los Angeles, Calif.

Vice-Presidents

Election of eleven vice-presidents of N.E.A. also was announced Friday. They are: John W. Abercrombie, Montgomery, Alabama; George C. Baker, Moorestown, New Jersey; Ernest W. Butterfield, Connecticut commissioner of education; Miss Jessie Gray, Philadelphia, Pa.; Miss Florence Hale, state director of rural education, Augusta, Me.; Miss Amy Hinrichs, New Orleans, La.; W. H. Holmes, Mt. Vernon, N. Y.; Eugenia West Jones, Los Angeles, Calif.; Miss Elizabeth McCormick, Superior, Wis.; Francisco Vizcarrondo, acting director of education of Porto Rico; and Edgar H. Whitney, Portland, Oreg.

MR. WILLIS E. SUTTON
President-Elect,
National Education Association

Miss Hale, of Maine, received 929 votes, the greatest given to any candidate for office, and Miss Amy Hinrichs was second.

Miss E. Ruth Pyrtle, Omaha, Nebr., retiring president, automatically became vice-president with the expiration of her term. Henry Lester Smith, dean of the University of Indiana school of education, unopposed for reëlection as treasurer, succeeded himself.

President Pyrtle's Message

E. Ruth Pyrtle, president of the National Education Association, in an address before the general assembly of the National Education Association at Columbus, Ohio, Monday morning, June 30, spoke on "Vital Values in Education," emphasizing the value of teachers having a sense of values and "putting first things first." The most valuable type of teacher is the one who is leading pupils to thinking, weighing, measuring, reasoning, making judgments, and leaving memory to become the by-product, rather than the main objective of the day's program. Miss Pyrtle emphasized the importance of the entire teaching profession assisting the N.E.A. national commission and the 48 state commissions in promoting plans for the wise use of leisure. She described in brief the plan of the association to seek coöperation of the American Federation of Labor, the U. S. Chamber of Commerce, the American Legion, and other organizations to work for the enrichment of adult life.

Richer Lives Ahead

"The old theory that people do not learn after 25 has been exploded by years of research and experience. People can now see richer lives ahead of them. In proportion as we spread the knowledge of actual facts, will we add new hope in the lives of men and women and in proportion as we provide opportunities for growth, will we witness improvement and enrichment of home and community life."

President Hoover Sends Greeting

Although it was impossible for President Hoover to address those attending the convention on its final day, he sent an enthusiastic telegram of greeting, in which he called attention to the fact that the most important work of the men and women of today is to care for the boys and girls and to give them a happy childhood and to equip them for a well-rounded, successful life. "Our task," he said, "is to give to every child the opportunity to grow up with a healthy body, a trained mind, and a disciplined character."

Pertinent Paragraphs From Addresses of Principal Speakers

Honorable Myers Y. Cooper, Governor of Ohio: "Your annual gatherings rightfully attract national and international attention, since they give emphasis to educational advancement and progress. While we wish to fully perform our duty as host, we are not unmindful that we are to receive from this body far more than we can possibly give.

Believe in Education

"Our people believe in education. You are here in the midst of your friends and I extend to you in their name the fullest possible measure of hospitality during your stay within our borders. We yield to no other commonwealth in appreciation of the wealth, in appreciation of the benefits of universal education and of the idealism in education for which this Association stands. We covet for the 1,300,000 youths of our state the best that your esteemed profession affords. We are proud to state to you that no child in Ohio, however remotely located, lives beyond the privilege of a thorough secondary education and that in our system of instruction equalization of educational opportunity is an accomplished fact.

"We have, however, the characteristic American attitude of advancement toward new goals of achievement, and we hail your coming and your deliberations among us as calculated to define more clearly the educational objective for the immediate future.

"We are proud of our 41,000 teachers in Ohio. Our state does not begrudge them one penny of the teachers' salary, totaling 54 million dollars, because we believe that we make no finer investment than that which has to do with the preparation of our youths for happy and useful lives.

"We believe in education. Without education we would not long survive the perils that beset our nation."

Honorable Ruth Bryan Owen, Member of Congress from the Fourth District of Florida: "A home is not merely a place bound in by four walls. For those who are members of a home it actually embraces as much territory as the automobile will carry them. What the average person considers as the home has been appropriately termed just a place to refill and retire.

"I believe women should have a place on every council of government that is to decide questions of war and peace between the nations. Ever since I saw the first troops marching off to France from London, I have wished that nations would find some way to settle their quarrels without throwing the bodies of their boys into the balance to do it."

Florence Hale, State Supervisor Rural Schools, Augusta, Maine: "In the history of education, there has never been a time when the creative impulse was so overpowering a factor in school procedure as it is today. The requirements of this surprising new world in which we find ourselves means indeed that a new heaven and a new earth has opened up before us in almost startling intensity. The generation of young people whom we are educating for their work in this new world are imbued with this spirit of creative desire to an almost painful extent. To fail to recognize its potential qualities in the boy or girl may result in tragedy in the case of the exceptionally brilliant mind and in dogged sullen idleness in the case of the less-gifted pupil.

"Especially must teachers who have been in the profession several years be very sure that they do not look only for their own time-honored ideas of what is ability. This new world of science, of moving pictures, of radio, has created a need for new abilities, new creative objectives, that cannot be evaluated by old-time standards. Colonel Lind-

(Continued on Page 66)

At right: A quiet, comfortable floor of *Sealex* Battleship Linoleum in the Law Library of the University of Arizona, installed by McLaughlin Furniture Co., Tucson, Arizona, Authorized Contractor of Bonded Floors.

Below: The splendidly equipped Law Building of the University of Arizona. Architect: Roy Place.

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QUIETNESS costs no more

THE University of Arizona has paid no premium for quietness in the library of its model Law Building. The floor material, *Sealex* Battleship Linoleum, is quiet by nature. It subdues the clatter of footsteps. Yet it costs no more (often costs less) than the hard, noise-promoting floors it supersedes.

When you build—or when you remodel—investigate the advantages and costs of using Bonded Floors of *Sealex* material. Ask us for an estimate. You'll be pleased with the reasonableness of the figure.

Sealex Battleship Linoleum is a splendid "heavy-duty" floor at low cost. Where a more decorative effect is desired, *Sealex* Jaspé Linoleum is far from expensive. In reception rooms, entrance halls, private rooms, etc., the cost of *Sealex* Treadlite Tile in made-to-order designs is not at all prohibitive. All are easy-to-clean, quiet and comfortable underfoot. And when installed by Authorized Contractors of Bonded Floors, they carry our Guaranty Bond.

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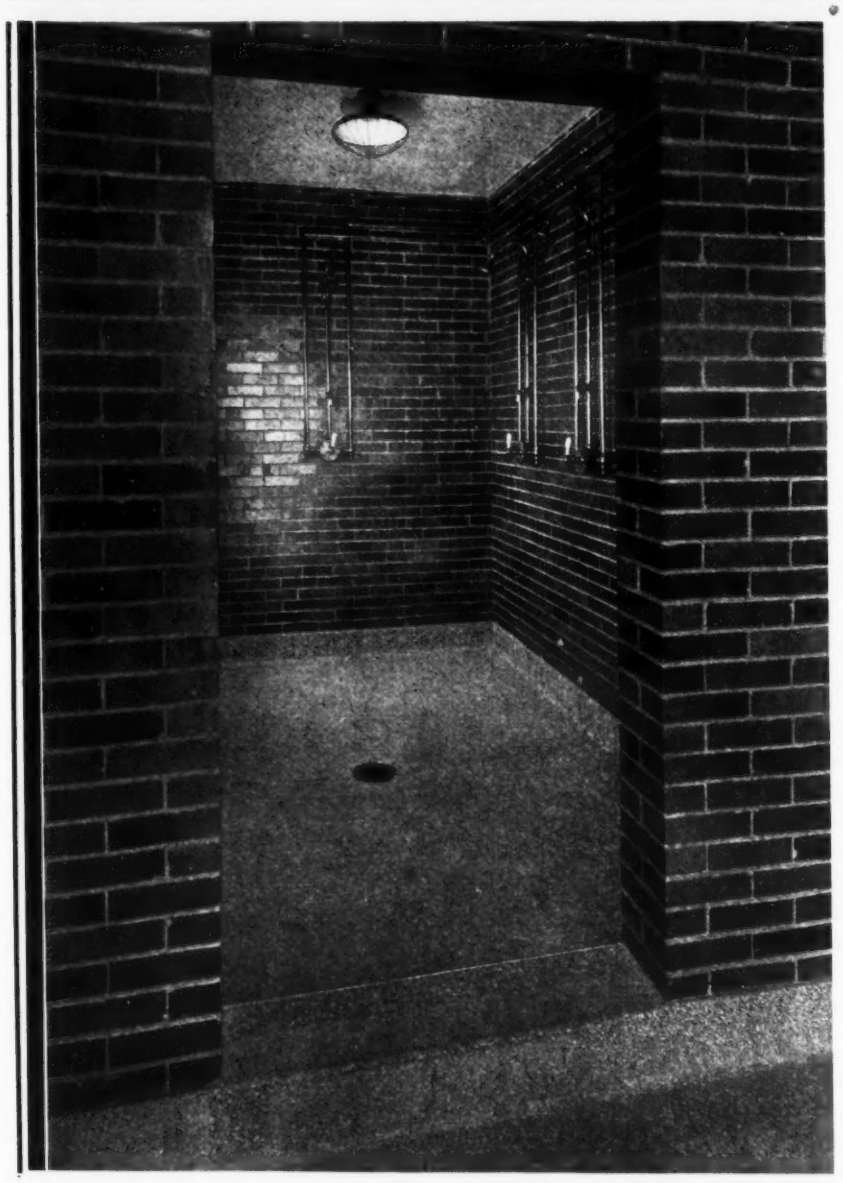

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(Continued from Page 64)

bergh, the indifferent college student, now becomes a wizard of the air; Rudy Vallee, the excellent college student, amassing fame and fortune as a radio hero; Marion Talley, creating a vivid ambition for fame in music in the young school girls' mind and, perhaps with the same creative impulse, leaving it to come closer to growing things in her western farm are typical of what we may expect of the younger generation.

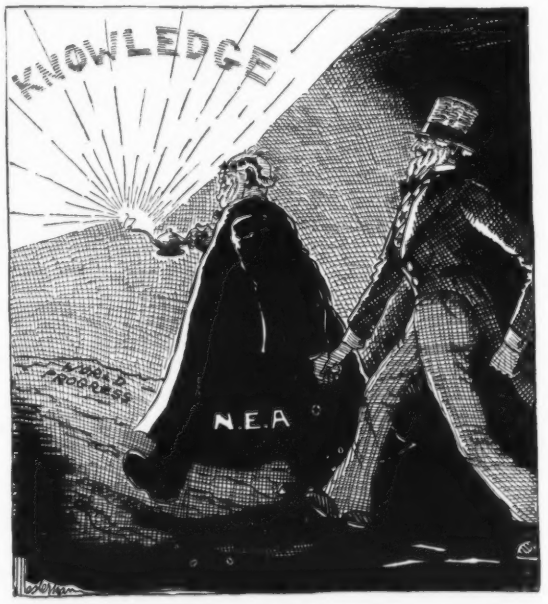
"The best schools have already taken count of this creative impulse. Today, teachers must be especially alert to detect unusual ability and a child's individual bent toward certain achievements. It is our task to capture these impulses at the right moment and lead them wisely to fruition. Perhaps all this means a richer, bigger heart in our teaching as well as keener eyes, intellectually speaking."

Garry Cleveland Myers, Western Reserve University, Cleveland, Ohio: "Good schools presuppose good parents. More than we realize, the child's success at school depends upon his home—his health habits cultivated there, his eating, sleeping, and play habits; his habits in regard to care of property, and attitude toward others' rights and toward authority; his habits of getting on with other children of his neighborhood; his habits of responsibility, of waiting upon himself, of finishing jobs which he undertakes, of carrying through without continuous supervision little routine tasks at home, of bringing himself in at regular hours from play, of setting himself to study at regular hours each evening, of sending himself to bed at a regular hour by the clock, of starting himself unaided to school promptly, and of caring for his own possessions.

"His learning habits also have their background in the home. Parents who ignore the child's curiosity, who are annoyed by it, or who ridicule his questions or remarks, crush out his basic learning interests. Wiser parents answer all his questions sympathetically, listen patiently to what he has to say, and are eager, honest learners with him."

Dr. William C. Bagley, of Columbia, and Dean of the American School of the Air: "Will radio in education create a repetition of what happened in the theatrical profession through the 'talkies'? What will become of those teachers who do not qualify as broadcasting teachers? They will still have their work to do in the schoolroom. Children will always need the supplementary face-to-face contact with a teacher to give the personal element to instruction. Through the possibilities of radio, the adult population will be able to continue its education far beyond its school days.

Joy Elmer Morgan, Editor of The Journal of the N. E. A., Washington, D. C.: "The four-hour working day has been predicted by the foremost thinkers in American industry. Most people have thought of it as something that would come in some future magic world. It is quite possible that many people who are now in the schools will live in an American social system where the four-hour day will be an accepted practice. Less than a century ago the one-hundred-hour working week was common. We now have a working week of approximately fifty hours. In other words, the average reduction has been one-half hour per year.



LIGHTING THE WAY
—The Ohio State Journal.

"Machines and combinations are now replacing men at much more rapid rate than ever before and the process is likely to go on for some time. It is reasonable to assume that the working week will be shortened on an average of one hour per year."

Willard E. Givens, Superintendent of Schools, Oakland, California: "The most vital person in public-school education is the progressive classroom teacher. She daily comes in contact with, instructs, and inspires our girls and boys."

Honorable William John Cooper, United States Commissioner of Education: "The eve of any great festal day is marked by a heightening of the emotions, and the eve of the nation's birthday is no exception to the rule. The day and hour of this meeting compel the mind of a student of history to take a backward look. This place of meeting also suggests an appeal to history. We are in a city named for the discoverer of the continent—the capital city of the first state carved out of the old Northwest territory — and this state is rich in historical events and is justly proud of its contributions to the life of our nation.

"We are not making such remarkable progress in solving our international relations, in achieving human brotherhood, in eliminating vice, crime, and immorality, in understanding man's appetites and habits, and in improving his methods of thinking that we can feel satisfied with the old methods. By following the paths blazed by the Clarks, Boone, and other pathfinders, we have won a continent; by accepting the painful path pointed out by Bacon, we have achieved a comfortable existence not enjoyed by kings or dreamed of as realized by even the celestial throng in Bacon's day. Perhaps by following the path indicated by our leading economists, psychologists, and sociologists, the pioneers of 1930 may bring to pass the kingdom of God on this continent."

(Concluded on Page 68)

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"We are happy to say that the doors in our new Administration Building which have been furnished by your company are giving us splendid satisfaction. We are particularly pleased with the absence of cross panels, both from the standpoint of easy cleaning and also from the standpoint of additional strength".

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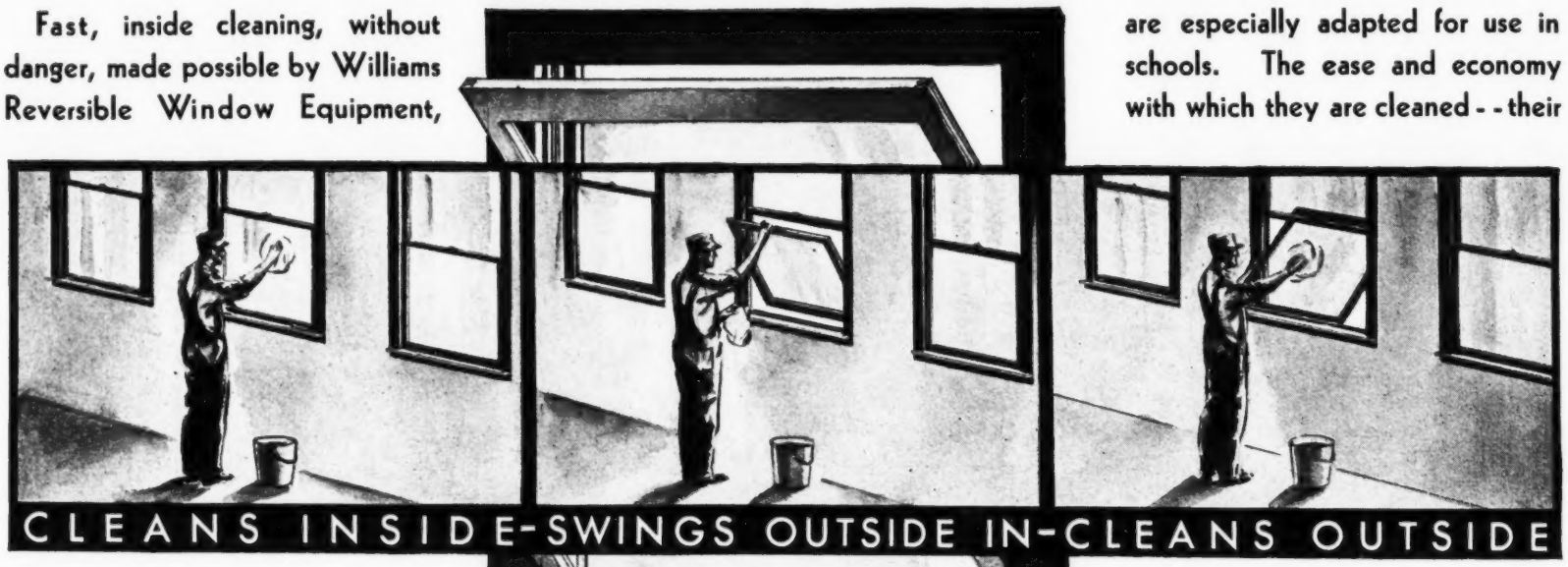

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(Concluded from Page 66)

Educational and Commercial Exhibits

The Ohio State Department of Education presented an exhibit for the visitors of the N.E.A. It pointed out in a graphic way the various functions of the 27 different divisions of the Department. The decoration scheme was novel in design and attracted considerable attention. The members of the Women's Club of the State Department of Education served as hostesses.

The New Mexico exhibit emphasized industrial-arts work. Some very fine specimens of weaving and metal work were displayed. A large map showed the far-flung school districts of this western state.

The commercial exhibits were arranged in the Exhibit Hall of the Columbus Auditorium. They included complete displays and demonstration of new materials and equipment, and of activities that are so helpful to school workers. Over one hundred exhibitors presented interesting educational displays.

Governor Myers Y. Cooper, J. L. Clifton, director of education; J. G. Collicott, superintendent of Columbus schools; George Rightmire, president, Ohio State University, received 1,365 educational visitors in the rotunda of the State House Monday afternoon. Many favorable comments were heard about the beauty of the rotunda with its historic flags and the famous painting of Perry on Lake Erie.

Important Resolutions

Higher qualifications for citizenship, higher standards for teachers, the passage of state tenure and retirement laws, and the independent function of each state department of education were among the resolutions adopted by the representative assembly of the N.E.A. in Columbus Auditorium, Thursday morning.

Tobacco advertising in periodicals used in schools, banned in one of the resolutions before the N.E.A., drew on a lively word battle. Objections to including the sentence pertaining to periodicals with tobacco advertising in this resolution were overruled

It was urged that Congress pass legislation requiring proof of the ability to read and write English understandingly, and a general knowledge of the principles and history of the United States Government before citizenship papers are granted.

A willingness to support and defend the constitution and to defend the nation in time of need was required in this resolution as a requirement to citizenship.

Recommendation that requirements for beginning teachers be immediately increased in all states, was contained in the resolutions. It was pointed out that trained teachers are now available in sufficient numbers to offer an unusual opportunity to reach the goal of four years' training beyond four-year high school.

ONE WEEK OF ADVICE, EXPERIENCES, IDEAS, THEORIES, PROBLEMS, SUGGESTIONS, OPINIONS, NOTIONS, ETC. ETC.
CAN I EVER BOIL IT ALL DOWN TO WHERE I CAN SERVE IT?
N.E.A.
WORLD VIEW POINT
THE SCHOOL TEACHER
THE SCHOOL ROOM
PRACTICAL APPLICATION

A HUGE TASK
—Columbus, Ohio, Dispatch.

Retirement Laws

A resolution was contained in the report urging the passage of tenure and retirement laws in each state, based on the principles of justice both to teachers and pupils. Such laws, it was stated, would tend to protect teachers from injustice, to place teachers on a professional basis, to guarantee competent teachers the benefits of retirement laws, and to secure reasonable personal and academic freedom; but would not prevent the discharge of teachers for incompetency, immorality or unprofessional conduct.

The association reaffirmed its belief that the control and direction of education must be maintained as an independent function of each state. Public education is a matter of such vital importance, it was added, that it is entitled to the scientific leadership and fact finding, which has been provided in the fields of agriculture, commerce and labor. It was urged that a department of education, with a secretary in the President's cabinet, be established to secure this necessary leadership.

Governmental Aid

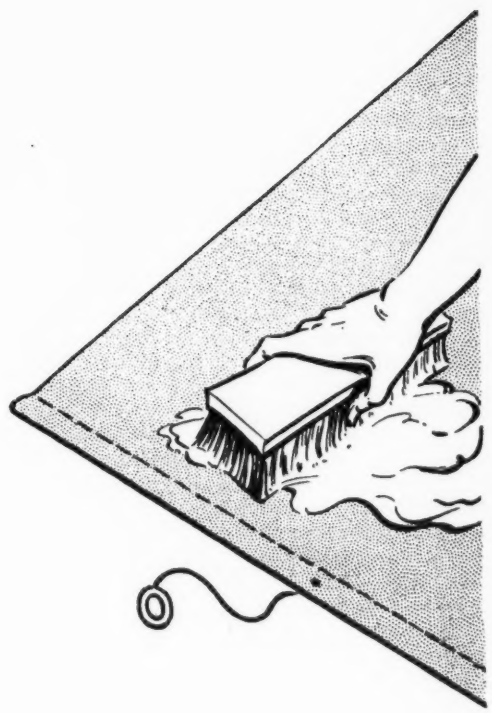
Elementary and high-school education for every child, regardless of residence, capacity, or handicap was another ideal approved by the educators.

News of School Officials

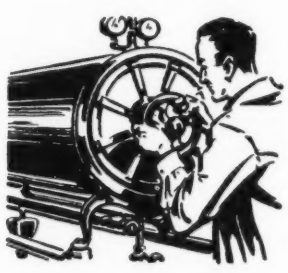
♦ MRS. ELIZABETH M. MEEHAN, for many years a member of the Milwaukee board of school directors, has been elected president of that body. She succeeds Col. Stephen Park. Mrs. Meehan received the support of the non-Socialist nine members of the board.

WASHABLE?

Shortly after an up-state New Yorker had bought a few NIAGARA window shades to try them out, his home caught fire . . . one of these smoky, smudgy affairs. The smoke that poured out the windows left the new shades a sad sight . . . until he scrubbed them. A happy dealer is now fitting *all* this man's windows with NIAGARA shades.



A retail store, staging a special demonstration of NIAGARA shades, washed one shade 156 times in one day, smearing it with lampblack each time. The shade was then hung up as a special (and interesting) display.



A hospital superintendent (something of a skeptic, apparently) put a whole set of NIAGARA samples under superheated steam in a pressure sterilizer for 30 minutes. The samples came up smiling . . . still washable, waterproof, and *handsome.*

. . . certainly,

BUT DON'T BUY THEM JUST FOR THAT

Columbia NIAGARA window shades are washable and waterproof. But don't buy them on that account. Don't buy *any* window shade just because it is washable.

Take a good-sized sample* of NIAGARA in your hand. Notice its satiny feel, and its firm, close-woven structure. See how rich and warm its coloring. Hold it to the light . . . admire its delicate translucence and its clear uniformity of texture.

Columbia
WINDOW
SHADES

ROLLERS · VENETIAN BLINDS

It's a handsome window shade. The kind you like to see at your windows. Buy it on *that* account. And be glad, if you like, that it *is* washable . . . for washability will *keep* it the kind of shade that you like to see at your windows.

NIAGARA is a fine, modern window shading . . . distinguished and deserving. Washability is an every-day incidental to its *thorough* modern goodness.

(**We shall be happy to send you one*)

THE *Columbia* MILLS, INC., 225 Fifth Avenue, New York. ✓ ✓ BRANCHES: Baltimore ✓ Boston ✓ Chicago ✓ Cincinnati Cleveland ✓ Dallas ✓ Denver ✓ Detroit ✓ Fresno ✓ Kansas City, Mo. ✓ Los Angeles ✓ Minneapolis ✓ New Orleans Philadelphia ✓ Pittsburgh ✓ Portland, Ore. ✓ St. Louis ✓ Salt Lake City ✓ San Francisco ✓ Seattle

What About Your Playground Equipment?

School days are just a few weeks away. Has your janitor or Superintendent of Maintenance inspected apparatus now stored away? What additions are needed?

WE AWAIT YOUR COMMAND! ! ! !

No matter whether it is a long length swing link you need for repairs or a complete playground equipment—the Hill-Standard Co. is best able to fill the order. Make the Hill STANDARD pay you big RECREATION DIVIDENDS.

THE FUN-FUL LINE
PLAYGROUND EQUIPMENT

Offers to you the solution of your playground problems. If at the present you are not numbered among our customers, we now extend to you the invitation to—

Send For Our New No. 11 Playground Equipment Catalog—

And we feel sure you will soon be among the thousands of satisfied users of FUN-FUL. We will be more than glad to advise with you on your playground equipment problems free of charge. Take advantage of the knowledge and experience of more than three decades of manufacturing progressiveness combined with engineering pioneering of more than a half century.

"Fun-Ful Shows the Way to Play"

IT PAYS TO PLAY

HILL-STANDARD CO.
ESTABLISHED 1900
ANDERSON INDIANA, U.S.A.

IT PAYS TO PLAY

SCHOOL LAW

LAW AND LEGISLATION

A suit filed in an Indiana court is to test the teachers tenure law of that state. Louis W. Arburn, superintendent of Oakland City schools is the complainant. Arburn charges that the school board and particularly the two individuals named separately are seeking to cancel his contract as superintendent and teacher not, as he alleges, for valid reasons but purely for personal reasons. He maintains that he taught under contract and was superintendent for five years before the state teachers tenure law was passed. That after the passage of this statute he and the Oakland City school board entered into a contract under provisions of the new act and so, he asserts, hold an "indefinite contract" under terms of the act.

Arbitrary power to dismiss teachers is not vested in school boards of Illinois, according to an opinion rendered by the attorney general of that state. All dismissals must be based on good and sufficient cause. He says: "Under the power given to the board of school directors the cause for dismissal springs out of the conduct of the teacher himself; while under the power of a board of education the cause for removal or dismissal is made to depend upon the opinion of the board of education," the attorney general held. Yet it is apparent that the courts do not construe the statute as giving the school board the arbitrary power to discharge a teacher. A school board must consider the interests of the school and base their opinion entirely upon the interests of the school and not act arbitrarily, capriciously, or on account of mere prejudice."

CHILDREN MUST ATTEND SCHOOL

The supreme court of New Hampshire, in the case of the State vs. Hoyt, has upheld the validity of a statute requiring that all children of school age be sent to a public school, or an approved private school. The court ruled that the state law is not unconstitutional as offending against the federal guarantee of liberty, pointing out that a child who is instructed and taught by a private tutor in his own home in the studies required in the public schools affords no defense to a violation of the statute.

Under the interpretation of the guaranty, so far as it has been declared, it appears that attendance at school may be required, and that the state may supervise the school attended. The power to supervise necessarily involves the power to reject the unfit, and to make it obligatory to submit to supervision.

SCHOOL LAW

Schools and School Districts

The formation of a new school district by consolidating old districts is held to be within the sound discretion of a county board of education (Ark. acts of 1927, No. 156, p. 550, £ 1).—Bledsoe v. McKeowen, 26 Southwestern reporter (2d), 900, Ark.

A county board of education organizing a new school district cannot greatly inconvenience, oppress, or outrage any party residing in the affected territory (Ark. acts of 1927, No. 156, p. 550, £ 1). —Bledsoe v. McKeowen, 26 Southwestern reporter (2d), 900, Ark.

School-District Government

An officer elected to fill a vacancy on a county board of education must qualify within a reasonable time.—Brown v. Rose, 26 Southwestern reporter (2d), 503, 233, Ky. 549.

One elected to fill a vacancy on a county board of education, and not qualifying until 60 days after election, has lost the right because of the unreasonable delay (Ky. statutes £ 1521).—Brown vs. Rose, 26 Southwestern reporter (2d) 503, 233, Ky. 549.

A certificate of election is held sufficient notice of duty of one elected to a county board of education to qualify.—Brown v. Rose, 26 Southwestern reporter (2d), 503, 233 Ky. 549.

An expense allowance to a county superintendent of education for the ownership, use, and upkeep of an automobile, where the allowance was in addition to the maximum salary, is held unauthorized as being beyond the power of a county board of education (Ala. local laws of 1927, p. 258).—Woodruff v. Beeland, 127 Southern reporter, 235, Ala.

Sums for counsel fées and for printing appeal in proceedings in which the school directors were surcharged with money expended contrary to the school statutes, should not be paid from the school funds, and the surcharge of the directors will be ordered (Pa. school code of 1911, £ 2613, Pa. statutes of 1920, £ 5369).—Bruce v. School Dist. of Sykesville Borough, 96 Pa. Super. Ct. 346, Pa.

Where the members of a school board were removed under a statute of the Pennsylvania school code, the action of a new board at a special meeting in reducing the secretary's salary was held binding as between the parties (Pa. school code of 1911, ££ 217, 309, 310, Pa. statutes of 1920, ££ 4699, 4718, 4719).—Swaney v. School Dist. of Georges Twp., 96 Pa. Super. Ct. 395.

The secretary of a school board had no contractual right to the rate of compensation originally fixed by the school board.—Swaney v. School Dist. of Georges Twp., 96 Pa. Super. Ct. 395.

A school board has a right to change the salary of the secretary.—Swaney v. School Dist. of Georges Twp., 96 Pa. Super. Ct. 395.

A surety which sued with a contractor on a bond securing the payment of labor and material for a school building cannot complain that a notice to the creditors was insufficient, giving of the notice not being jurisdictional (Utah complete laws of 1917, £ 3753)—Board of Education of Granite School Dist. v. Southern Surety Co., 287 Pacific reporter, 332, Utah.

A surety on a school-building bond may extend the time for bringing action on an undertaking, and cannot subsequently shift his position to escape the liability assumed.—Board of Education of Granite School Dist. v. Southern Surety Co., 287 Pacific reporter, 332, Utah.

A contract for the construction of a school building is not finally settled, beginning the running of a limitation against the materialman's action on the bond, if a dispute exists regarding the

(Concluded on Page 73)

A Bloxonend Floor in the gymnasium of the Washington Junior High School, Pontiac, Mich.
Malcomson & Higginbotham, Architects.

A Good Floor "Peps Up" any Gym Class

To a gym class, a floor of BLOXONEND is as invigorating as a pasture to a horse. The thrill of a beautiful expanse of floor space . . . the realization that the surface is firm and speedy, yet inherently resilient . . . the feeling of safety and security in knowing that end-grain means sure footing and freedom from splinters . . . children need no urge to action on BLOXONEND gymnasium floors — the "get-away" is spontaneous.

To a School Board, a floor of BLOXONEND is an investment that pays big dividends . . . The material is as durable as the walls and foundation of the building . . . Upkeep cost practically nil . . . The floor is susceptible to any desired finish and can be successfully utilized for dancing, calisthenics, games and all type of gym or auditorium activity . . . Equally good for replacing worn gym floors. The summer holiday is a good time to do this . . . Tell us about your floor problems. Perhaps we can help you.

CARTER BLOXONEND FLOORING COMPANY
KANSAS CITY, MISSOURI

Representatives in Principal Cities

BLOX-ON-END FLOORING

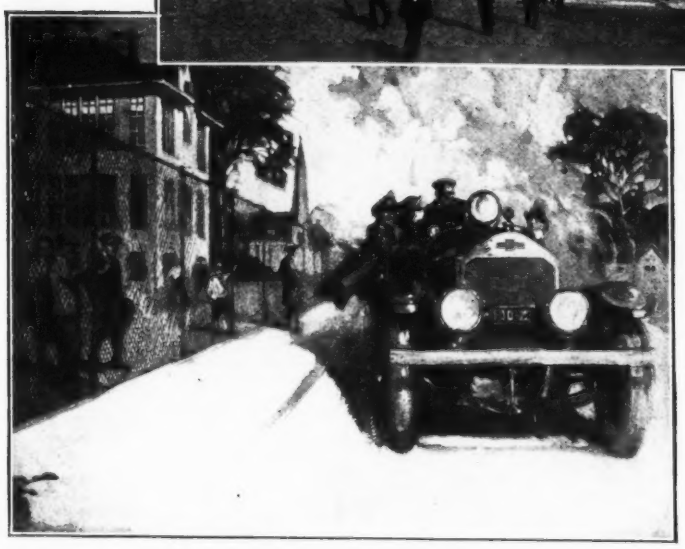
Lays Smooth Stays Smooth

Bloxonend is made of Southern Pine with the tough end grain up. It comes in 8 ft. lengths with the blocks dovetailed endwise onto baseboards.

Leading School Architects specify Bloxonend Floors for Shops and Gymnasiums in the country's best schools.

How safe are they at recess time?

The open playground — here danger threatens!



The fenced playground — here children play in safety!

School board officials are relieved of a great responsibility when they provide fence protection for school playgrounds. For in face of today's traffic conditions, absolute safety for children can be provided in no other way.

Leading schools throughout America are enclosing playgrounds with Cyclone Fence. It keeps children out of danger and protects school property at all times.

Cyclone Fence retains its dignified appearance many years. Built so that top rail will not sag, nor posts lean, nor fabric lose its rigid strength.

You can see for yourself why Cyclone Fence is so outstanding in durability. All parts are made of copper-steel, heavily galvanized. Note the dense, smooth coat of zinc on the fabric—the result of hot-dip galvanizing. No rough spots, no chipped places, no chance for rust to start. Erected on H-column posts — the strongest posts made.

Cyclone Fence is installed by our own trained men. Erection service everywhere. If Cyclone Fence Company is not listed in your phone book, write direct to us.

© C. F. Co. 1930

Cyclone Fence

REG. U.S. PAT. OFF.

CYCLONE FENCE COMPANY

SUBSIDIARY OF

UNITED STATES STEEL CORPORATION

General Offices: WAUKEGAN, ILL.

Branch Offices in All Principal Cities

Pacific Coast Division:

STANDARD FENCE COMPANY, *Oakland, Calif.*

All chain link fence is not Cyclone. This name plate identifies the genuine Cyclone Fence.

SINCE 1867

COLDWELL POWER

Above: Coldwell "Twin-Thirty" motor lawn mower and roller. Mows and rolls simultaneously 6 to 8 acres a day on one gallon of gasoline. Riding sulky may be had as extra equipment.

Spring-like lawns throughout the late summer months - -

are the rule where the COLDWELL POWER LAWN MOWERS AND ROLLERS are on the job.

Frequent light rolling conserves the moisture and the periodical cutting stimulates the growth of the blue grass and clover. Dandelions, plantain and other lawn pests simply can't exist under this treatment.

This DEPENDABLE Coldwell equipment has been standard for more than thirty years on America's finest lawns.

Full particulars and name of nearest Coldwell distributor on request.

* * *

COLDWELL LAWN MOWER COMPANY,

NEWBURGH, N. Y., U. S. A.

In Canada—Taylor-Forbes Co., Ltd., Guelph

Manufacturers of DEPENDABLE *Lawn Mowers*

HAND, HORSE, GASOLINE, ELECTRIC

DEWITT CLINTON
HIGH SCHOOL
NEW YORK, N.Y.

Students in 26 New York Public Schools

SWIM IN DRINKING WATER!

WALLACE & TIERNAN CO., INC.
Manufacturers of Chlorine Control Apparatus
NEWARK · NEW JERSEY

Baltimore, Boston, Buffalo, Charleston, Charlotte, Chattanooga, Chicago, Cleveland, Dallas, Denver, Detroit, Indianapolis, Jacksonville, Kansas City, Knoxville, Lexington, Lincoln, Los Angeles, Minneapolis, New York, Ogden, Oklahoma City, Philadelphia, Pittsburgh, Roanoke, San Francisco, Seattle, Spokane, St. Louis, Syracuse. Wallace & Tiernan, Ltd., Toronto, Winnipeg, Canada. Wallace & Tiernan, Ltd., London, England

The twenty-sixth W. & T. Chlorinator to be installed by the New York Board of Education during the past seven years is now in service on the DeWitt Clinton High School, a recently completed unit of the Board of Education's $350,000,000.00 school program.

Surely a convincing argument in favor of equipping your school pool with a W. & T. Chlorinator.

(Concluded from Page 70

balance due the contractor (Utah complete laws of 1917, £3753).—Board of Education of Granite School Dist. v. Southern Surety Co., 287 Pacific reporter, 332, Utah.

An erroneous architect's final certificate which was later corrected was held not the final settlement commencing the running of a limitation against the materialman's action on the bond (Utah complete laws of 1917, £3753).—Board of Education of Granite School Dist. v. Southern Surety Co., 287 Pacific reporter, 332, Utah.

A surety on a school contractor's bond cannot complain that the money the contractor received under the contract was not used to pay an obligation growing out of such a contract (Utah complete laws of 1917, £3753).—Board of Education of Granite School Dist. v. Southern Surety Co., 287 Pacific reporter, 332, Utah.

A materialman suing a surety on a school contractor's bond for material furnished is held entitled to interest on the account, the absent showing credit was given (Utah complete laws of 1917, £3753).—Board of Education of Granite School Dist. v. Southern Surety Co., 287 Pacific reporter, 332, Utah.

Teachers

The possession of a life diploma did not confer the right on the holder thereof to pick out any school in the state and to demand employment (Calif. pol. code, £1696).—Matteson v. Board of Education of City of Los Angeles, 286 Pacific reporter, 482, Calif. App.

BUILDING NEWS OF THE SCHOOLS

SAN FRANCISCO BUILDING PROGRAM

The board of education of San Francisco, Calif., has adopted a tentative building program, calling for the expenditure of $2,685,000 for new buildings and improvements to existing structures. The greater part of the building projects are to be completed within the next twelve months.

The principal project in the program is the George Washington High School, which is to be erected this year, at a cost of approximately $1,500,000. The school which is said to be one of the largest in the country, will embody the latest and best in school architecture. The Bernal Junior High School, to be completed within the year, will be erected at a cost of $600,000. Other projects to be included in the new program are an addition to the girls' high school, at a cost of $145,000, an elementary school to cost $150,000, and additions to two elementary schools, at a cost of $290,000.

AMERICAN SCHOOL BUILDINGS EXHIBITED

The International Institute of Teachers College, Columbia University, has sent to Leningrad, Russia, an extensive exhibit of photographs and plans of school buildings erected in recent years in the United States. Among the prominent American architects who have contributed pictures and plans are Starrett and Van Vleck, New York City, Coffin and Coffin, New York City, Tooker and Marsh, New York City, Childs and Smith, Chicago, Hamilton, Fellows and Nedved, Chicago, Frank Irving Cooper Corporation, Boston, William B. Ittner, Inc., St. Louis, and Guilbert and Betelle, Newark, N. J.

The superintendents of schools of Pittsburgh, Cleveland, Rochester, Detroit, Des Moines, and Denver have also assisted in developing the exhibit.

The collection was made under the direction of Dr. N. L. Engelhardt, who added considerable material of his own preparation.

MR. ITTNER MOVES

After occupying the same offices in the St. Louis Board of Education Building for more than 25 years, Mr. William B. Ittner, F. A. I. A., has removed to the Continental Life Building, St. Louis. The new offices, which are at 3615 Olive Street, occupy the entire twentieth floor of a beautiful new building, and include greatly enlarged space for the drafting and engineering departments of the Ittner school-planning organization. Before extending his school practice over the United States, Mr. Ittner was for 19 years architect of the St. Louis board of education.

NATURAL ILLUMINATION IN SCHOOLROOMS

The U. S. Public Health Service has conducted a number of studies in natural illumination for schoolrooms. A recent report (Bulletin No. 188) deals with the effect of clouds on daylight illumination and on daylight ratios. It shows that the science of lighting rooms by means of daylight has not kept pace with the science of artificial illumination. The lack of knowledge of the conditions of natural lighting in schools and institutions has led to an intensive study of the conditions prevailing, and to a study of the principles underlying good daylighting.

Another report gives an analysis of the effect of clouds upon the inside illumination, outside illumination, and the brightness of the sky. There is also an analysis of the ratio of the inside illumination on a desk to the total outside illumination, and the ratio of the inside illumination to the outside sky brightness. Other subjects studied are the distribution of light within a room, changes in the distribution accompanying changes in other factors, and the relationship between inside illumination and the area of the sky vault visible from each respective desk. A generalized formula is given for forecasting the inside illumination from the plans of a building under any kind of circumstances.

SCHOOL BUILDING NEWS

—Marion, Ohio. An elementary school and assembly hall has been completed recently, at a cost of approximately $100,000. Additions to four elementary schools are being completed at the present time, which will add nineteen additional classrooms and additional assembly space to the schools. Bids have been received for a junior high school, to cost about $300,000. The entire work is part of a $750,000 program, which was voted during the fall of 1928.

The *NEW* LIBBEY·OWENS·FORD LABEL

—*and what it means to you*

THE practice of labeling "A" quality sheet glass for windows was originated by Libbey-Owens four years ago. It came about through the insistence of architects, contractors and builders, that some definite means be made available for identifying this superior product.

The L/O label revolutionized glass buying. Leaders in the building field began to specify Libbey-Owens "A" quality *labeled* glass. The label gave them a positive means of identification—an assurance of uniform high quality window glass.

Now, with the consolidation of the Libbey-Owens Glass Company and The Edward Ford Plate Glass Company, a new label has been created. It will appear on each light of "A" quality glass produced by the new organization. Its significance, however, will not change. What the old L/O label has meant to those who specify and use glass, the new L·O·F label will continue to mean—that the light of glass upon which it is affixed is of a definitely superior quality.

LIBBEY·OWENS·FORD GLASS COMPANY

TOLEDO, OHIO

Manufacturers also of high quality polished Plate Glass and Non-Shattering Safety Glass

SCHOOL FINANCE AND TAXATION

LANSING, MICH., HAS DEBTLESS SCHOOL SYSTEM

Lansing, Michigan, is a city of 100,000 population, which compares favorably with other cities of similar size, and yet is free from bonded indebtedness for its 30 school buildings. The manner of its accomplishment has been told by Mr. C. W. Otto, secretary-manager of the Lansing chamber of commerce in a recent issue of *The American City*.

The city has a regular school enrollment of 16,545. It maintains an evening school with an enrollment of 2,558, and a continuation school with an enrollment of 460, making a grand total of 19,563 students. The school plant consists of 30 buildings, valued, with land and equipment, at $6,300,000. There are two senior high schools with an enrollment of 2,200 students, and three junior high schools enrolling 3,500 pupils, as well as 22 grade schools, and two special schools.

The Lansing school district has included in its annual budget for several years past from $250,000 to $300,000 for building purposes. It is without bonded indebtedness, and therefore has no annual interest charge to meet. It financed its million-dollar high school, built two years ago, by accumulating the money over a period of some three years. When the building was completed, it was paid for. The amount raised annually for school-building purposes is much less than many cities in the country of similar size require for annual interest charges on bonded indebtedness. Its tax rate is $9.50 per $1,000 of assessed valuation, and this rate has been maintained for some years past. None of the cities in Michigan comparable in size with Lansing have been able to maintain a lower tax rate for schools, and all of them have a bonded indebtedness ranging from $2,000,000 to $8,500,000 with an annual interest charge which can be easily computed.

During the year 1930, the school district is doubling its school facilities, and is constructing the first unit of a new grade-school building, all of which will involve an expenditure during 1930 of approximately $250,000.

The present favorable financial situation is due to the fact that when the last bonds were paid in April, 1905, someone discovered that the buildings for which the bonds were issued had been paid for several times in principal and interest. The citizens then determined to pay for their buildings of the future out of current taxes. During the intervening 25 years, it has meant at times some sacrifices to maintain this policy. It has, however, left the present generation with unencumbered school property, valued at $322 per capita of school enrollment, with a modest tax rate, and schools which are considered the equal of any in the country.

CALIFORNIA SCHOOL-TAX PROBLEMS

"Ten states of the Union have adopted severance taxes of various kinds and amounts. Five of the ten states devote the income from such taxes wholly or in part to the support of public education.

"The severance tax is, in reality, a state royalty, levied upon the consumption of the natural resources of the state. Natural resources are interpreted for this purpose to include gas, oil, mining, and quarry products and other forms of valuable deposits, and virgin timber. There appears to be no reason why waterpower might not be added to the list.

"There is no doubt that the people of California have ample ability in the aggregate to support not only an adequate system of elementary and secondary education for the children of the state, but also to carry on the many other needed public enterprises for the betterment and protection of the people. In the year 1926 we spent about five times as much for passenger automobiles as for public education from the kindergarten to the university, and approximately six sevenths as much for tobacco."

Thus writes Dr. Elmer H. Staffelbach, director of research for the California Teachers Association. The expert then argues for a more equitable system of taxation by holding that "the ability to pay taxes depends upon the ability to produce income, and that there is a better method of raising public money than the common property tax."

He then suggests that a properly graduated income tax would make available ample revenues whereby the public enterprises of the state might be adequately supported, by tapping at its source the current wealth generated within the state. Another form of tax, similar in effect to the income tax, though different in form, is the sales tax. This tax consists of a specific or ad valorem levy upon certain expenditures, or upon all expenditures, made by individuals within the state. The present gasoline tax is a form of sales tax.

FINANCE AND TAXATION

♦ Peoria, Ill. The school board has adopted a budget, calling for the expenditure of $1,596,300 for the school year 1930-31. The educational fund was given $1,132,900, while the remaining $463,400 is for the building fund. The total expenses for administration are $36,960, while $932,695 is for instructional purposes. A reserve fund for a ten-year building program is included in the new budget.

♦ Cedar Falls, Iowa. The school board has adopted the same budget, $92,500 for the next school year, despite a 5-per-cent increase in school enrollment. The budget includes $78,000 for school building, $14,000 for bonds, and $500 for textbooks.

♦ Chicago, Ill. Pres. H. W. Caldwell of the school board has asked the city comptroller to arrange for the sale of $4,000,000 of 1930 tax-anticipation warrants. The sale of these warrants will provide funds for paying the teachers' salaries for June.

♦ Mrs. Robert Hector, member of the board of education of Berkeley, Calif., urges that new school building projects be financed through direct taxation rather than bond issues. She contends that

(Concluded on Page 76)

Achieved by Years of Manufacturing Experience

Evidenced in Wide Spread Use

THE selection of an interior telephone system for any school project is important enough to merit the fullest investigation to determine which type will give the most thorough and lasting satisfaction.

Of course, it will be automatic. In no other way can it be selected to fit modern needs. But QUALITY also should be given careful consideration. And quality means more than careful workmanship. It means a background of long experience and successful application.

In your study of Strowger P-A-X you have these important facts to guide you:

In equipment: the fact that Strowger P-A-X is engineered and made by the pioneer automatic telephone manufacturing organization and the largest of its kind in the world.

In usage: the fact that more than four million Strowger automatic telephones have been made and installed throughout the world and almost 2000 Strowger P-A-X systems are now serving the leaders of business and industry in the United States.

In school use, Strowger P-A-X is proving particularly useful. School officials can rely on Strowger P-A-X to help run their schools on modern lines, with the same saving in time and gain in efficiency that this equipment has accomplished in business and industry.

We shall gladly make a survey of any school project calling for interior telephone equipment and recommend accordingly. Bulletin 1026 describes available types. A copy is yours for the asking.

STROWGER AUTOMATIC DIAL SYSTEMS

Engineered, Designed and Manufactured by

Automatic Electric Inc.

Factory and General Offices:
1033 West Van Buren St., Chicago, U. S. A.

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(Concluded from Page 74)

"future generations will have problems enough without an inheritance of public debts. Outside of this injustice to our children, as a matter of economy we are paying double for our buildings through the bonding method. Too often a big program is put over by men of too little experience and we have to pay for mistakes for forty years. Note the mistakes of the 1919 bond program for which our children and our grand children will be paying up to 1959."

♦ Great Falls, Mont., sold $150,000 worth of school bonds bearing an interest rate of 4.75 per cent. A new high school is to be constructed.

♦ The Pine township, Pa., owes the school board of Grove City, Pa., the sum of $5,000 for unpaid tuition fees. The Pine township is overborrowed at the banks and is unable to secure more money. It is planned to pay the obligation on the installment plan.

♦ The school board of Grover Hill, Ohio, has become cautious on the subject of bank deposits. The board lost $9,000 through a bank failure. It now exacts a bond covering several times the amount of its deposits.

♦ The school board of Marion City, Ind., has reduced the school budget for the next term $20,000, through eliminating six teachers and reducing the salaries of those retained. The school term has been reduced from nine to eight months.

♦ Mrs. Almuth E. Otten, a member of the Springfield, Ill., board of education, favors the abolition of the office of business manager and the creation of an assistant superintendency. She says: "We do not question the fact that the business office should be supervised, but we do seriously question the practice of employing a man whose abilities and duties relate solely to these details. The ultimate function of all these activities pertaining to the school system is the education of the child. To be sure specialized knowledge is essential to the achievement of this aim but the aim is educational and the directing force must be primarily educational in character."

♦ Quincy, Ill. The school board has adopted a school budget, providing for a total levy of $611,100, or an increase of $6,050 over the past year. The increase has been attributed to minor shortages incurred during the past school year and to anticipated increased expenditures. The largest increase in the items listed in the budget was an increase of $4,000 for teachers' salaries. The total for this purpose was set at $324,000 for the year.

♦ Benton, Ill. The school board has reduced the teaching staff by dropping eleven teachers, with a reduction of $18,000 in the operating expenses.

♦ Akron, Ohio. The school board has adopted a budget of $5,657,056 for the school year 1930-31.

♦ The school board of Dallas, Tex., has voluntarily reduced its request for school bonds from $600,000 to $450,000. The new, low amount has been accepted, with the provision that the school board may, if necessary, come back to the city commission later in the year for an additional amount of bonds as may be needed.

♦ The board of education of Milwaukee, Wisconsin, has completed its school budget for 1931, which calls for $9,738,017.

♦ Rockford, Ill. Payment of tuition bills, totaling $80,789, of which the board of education receives $58,548, has been authorized by the Winnebago county board of education. Tuitions of 510 students were paid this year by the board. Of this group, 387 attended junior high schools and senior high schools in Rockford.

♦ Akron, Ohio. The local chamber of commerce has presented a petition to the school board, protesting against the proposed operating budget for next year, which will raise the city's tax rate about .66 mills. A committee has been appointed to show the board how to reduce its proposed $5,657,000 budget. The budget for last year was $361,694 less than that proposed for 1931.

♦ The school board of Indianapolis, Ind., has received bids on a bond issue of $174,000, of which $165,000 will be spent for new schools and improvements to schools.

♦ Columbus, Ohio. The school board has adopted a tentative budget, calling for the expenditure of $6,490,153 during the year 1931. The budget represents a slight increase over that for last year. This year's budget shows that $6,061,135 will be derived from taxes, which is $61,000 more than was asked in the 1930 budget. The largest item in the budget is $3,691,225 for instructional expenses.

♦ Davenport, Iowa. The city schools will bequire an expenditure of $1,112,833 for the fiscal year ending July, 1931.

♦ Waukegan, Ill. The school board has appropriated $400,000 for educational purposes and $160,000 for building purposes. The board levied $360,000 for educational purposes and $120,000 for building purposes, for redemption of bonds, and payment of interest on bonds.

♦ Canton, Ohio. The school board has asked the budget commission for $2,791,600 for 1931, which is $40,000 less than for 1930. The reduction has been attributed to the operation of a conservative financial plan and to a somewhat lower sinking fund. The sum of $200,000 will be transferred to the building fund for the erection of a school in the northeast section.

♦ Hamilton, Ohio. The school board has adopted a budget of $915,585 for the school year 1931, which is an increase of $22,775 over that of last year. A large part of the increase is due to the erection of four schools which require additional teachers.

♦ Decatur, Ill. The school board has adopted a total tax levy of $900,000, which is to be raised by a 2 per cent tax rate. Of the total, $675,000 is for the educational fund, and $225,000 for the building fund.

♦ East Cleveland, Ohio. The school budget for 1931 will be $50,000 less than for the past year, despite the fact that a new junior high school will be in operation in September. The total for the 1931 general fund is $1,171,595, as compared with $1,204,108 for last year. The decrease is $32,513.

♦ Akron, Ohio. The Chamber of Commerce has proposed a $44,000 reduction in teachers' salaries for the 1931 school term, and a $500 reduction in the amount set aside for the school census in order to effect a lower school budget. It is estimated that the elimination of increases in salaries for the 1931–32 school term would reduce the budget by $44,000 and the budget of the following year by $55,000.

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Instantly as the foot brake is applied, the N-L Flasher Stop Signal catches the attention of the most careless motorist. A vivid, brilliant attention-demanding signal, flashing its warning long distances in both directions. An entirely new application for the most successful type of warning signal.

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SCHOOL ADMINISTRATION NOTES

ACADEMIC ACHIEVEMENT IN RELATION TO MOVIE ATTENDANCE

There have been a good many statements on the good and bad effects that movies have on children particularly from the standpoint of health and school success. Some people believe that attendance at motion pictures is educational with most types of approved plays. They believe that a child indirectly absorbs a great deal of information at the theater that is related to the work at school. They feel that the plays seen stimulate the reading of the books that are based on plot and that skill in reading is increased. Other people believe that children suffer more than they gain through the passive attitude in which the films are viewed, the late hours usually kept, and the highly emotional quality of so many of the stories.

Mr. A. S. Lewerenz, statistician of the division of psychology and educational research, Los Angeles, Calif., recently made a study of the academic achievement and mental level of 581 elementary-school pupils in relation to frequency of attendance at motion-picture theaters. The purpose of the study was to make a start at gathering educational and social data that would throw some light on the value of the motion-picture film as an aid to education.

The steps taken in carrying out a partial study of the relation of moving-picture attendance to mental level and school accomplishment were as follows: (1) Utilization of the results of educational surveys of elementary schools including pupil data for chronological age, mental age, intelligence quotient, reading accomplishment, and arithmetic accomplishment; (2) Additional information from each child regarding the number of performances attended during a given period; (3) Cutting the movie attendance record of a child on his Hollerith card at the time the counselor data was prepared: (4) Using the sorting and tabulating machines for providing the necessary listings and tables; (5) Finding central tendencies, ranges, and correlations as are necessary for interpreting the data; (6) Making case studies of children at the extremes in the range of frequency of attendance to more fully explain such differences.

The study involved a study of 1,372 Chicago and 581 Los Angeles elementary-school pupils. Apparently, the Chicago pupils attend more frequently than do those in Los Angeles, as the percentage for once and twice a week is greater for the former, while that for less than once a week is larger for the latter. The study indicated that in grades four, five, and six, it is the older pupils who go most frequently to the movies. There is more than a year's difference in age, on the average between the pupils who attend movies most and least frequently.

The average I.Q. of pupils who go to the movies four or more times a week seems to be lower than that of those who attend less than once a week. It was apparent that an economic control on attendance might operate. Children with I.Q's below 79 attend movies less frequently than those who have I.Q.'s between 80–89, while for the other groups there is a tendency for frequency of attendance to grow less as the intelligence becomes higher.

At School B in Los Angeles it was found that the knowledge of word meaning possessed by movie fans was somewhat better than that of pupils who attend infrequently. It is true that their vocabulary is slightly better than that of unselected pupils of about the same mental level.

Using mental age as a criterion for desirable performance, it was found that movie fans read better than expectation. At School A the fans were reading two months above expectation, while at School B, they were reading four months above expectation. On the contrary, the nonmovie going group at School A were reading but one month above expectation, and at School B, they were reading one month below expectation. In comparison to other unselected pupils of about the same average mentality, the movie fans at School B were reading about a half year better and the nonmovie pupils were reading about two months better respectively. At School A, the fans were reading one month better than the control group, while the nonmovie goers were about two months better than their control group.

At both schools it was found that the ability to do reasoning problems in arithmetic was markedly lacking with the movie fans. The schools as a whole were below norm in arithmetic reasoning, but the fans were still more so. At School A the fans were working eight months below expectation, while at School B, their achievement was eleven months lower than their mental grade placement.

The movie fans were again at a disadvantage in the ability to solve problems in arithmetic requiring addition, subtraction, and other arithmetical processes. At School A the fans were one year and four months older than the nonmovie going pupils, but they were exactly at the same point in arithmetic. At School B the difference was even greater. The fans were a year older but were two months behind the other group.

With respect to mental age, at School A fans were working two months above expectation, while the nonmovie going pupils were doing work three months above their mental level. At School B the situation was more unfavorable, since the nonmovie goers were doing work one month above the goal set by mental age.

As a result of the study, Mr. Lewerenz reached the following conclusions:

a) It is true that children who go to movies are also good readers and have a good vocabulary. On the other hand, they fall down badly in reasoning in arithmetic and the fundamentals of arithmetic.

b) It is noted that it is the old, dull pupils who go to the movies most frequently, and that the young, bright pupils go least frequently. Between the two groups there is more than ten points difference in I.Q.

c) While movie fans seem to be active readers, the books and magazines they read are of the sensational type. Neither they nor their parents have

(Continued on Page 80)

White Safety School Bus Seating 40 to 55 Children

White Announces 40 to 55 Passenger Safety School Bus

EQUIPPED with every modern safety device, a special bus, Model 61A, seating 40 to 55 passengers, has been developed by The White Company for the transportation of school children. It is designed and built for maximum safety, comfort and dependability.

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Schools purchasing White Busses have absolute assurance that their transportation equipment is the best obtainable—that their Whites will give safe, dependable and economical service for hundreds of thousands of miles.

Before you purchase your next school bus it will pay you to investigate what White has to offer. We will be pleased to send you complete details with full specifications of the White Safety School Bus.

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You call—are answered in a moment's time and—IT'S DONE.
No serious interruptions of the teacher's work.
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No undue prominence given to a minor routine detail.

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You leave your desk—you spend 10 or 15 minutes of valuable time, you interrupt the work of a room, distracting the attention of many pupils from their work. A minor routine detail has become a matter of serious interruptions and wasted time.

Multiply the above by several times daily—as the busy head of a large school must, and you have a compelling reason why school Telephones are essential equipment in modern school administration.

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(Continued from Page 78)

as many books of their own as do children who infrequently go to movies. Only rarely were books read based upon or directly connected with movie plots.

d) Movie fans seem to prefer exciting pictures of war and mystery, to a greater extent than the nonmovie going children who enjoy comedies.

e) Movie fans go to bed a half hour later and sleep half an hour less on the average than do the nonmovie children. Age may be a factor here, as they were more than a year older.

FIGHTING SCHOOL VANDALISM

The business manager of the Chicago board of education, Ernest Withall, has launched a campaign against the destruction of school property. He notes that 103,647 window panes in Chicago's school buildings were broken during the past four years. A recent survey discloses that 22,124 panes were broken in 1926, 27,432 broken in 1927, 26,334 in 1928, and 27,757 in 1929. This is an annual average of approximately 26,000 broken panes of glass per year.

It is necessary for the board of education to spend between $150,000 and $200,000 annually to keep the windows of the public schools in repair. This, and the fact that 64 per cent of the school windows are broken by vandals has prompted Mr. Withall to map out a broad plan of activity intended to cover the entire city.

By this plan, all city police, the various park police, judges of the juvenile courts, every business, civic, commercial and religious organization, including women's clubs, motor clubs, principals and teachers, will be asked to coöperate.

Parents must be brought to face the situation, and made to realize that it is as much their responsibility as it is the schools, says Mr. Withall, and that the cost for repairing and replacing broken glass is taken out of the funds of the schools.

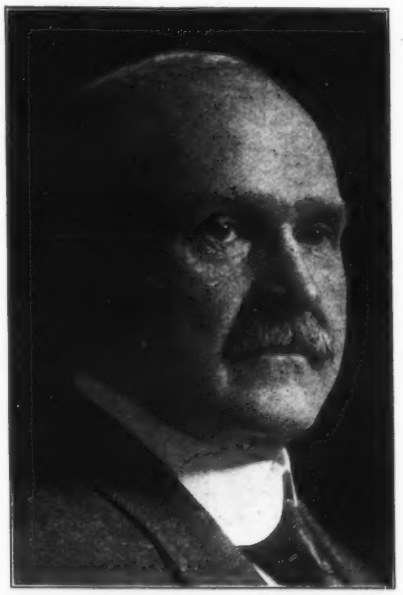
In other words, the money spent for the breakage of glass during the past four years, which is over one-half million dollars, could have carried approximately 6,800 children through elementary school, or 4,054 through senior high school, or purchased 133,000 tons of coal with which to keep the schools warm in winter.

DEATH OF WILLIAM DAVIDSON OF PITTSBURGH

Dr. William Mehard Davidson, superintendent of schools of Pittsburgh, Pa., died at his home in that city on July 27, after a brief illness.

Dr. Davidson was a graduate of the Kansas State Normal School of Emporia, the Kansas State University, Miami University, and the University of Pittsburgh. He had been superintendent of the Pittsburgh schools since January, 1914. Before that, he had been superintendent of schools at Washington, D. C., for three years, and superintendent of the Omaha, Nebr., schools for seven years. He had been reëlected successively for terms of six years each.

Dr. Davidson's administration in Pittsburgh was one of efficiency and sincere devotion to the educational interests of the city and its school children. He consistently stood for an enriched curriculum and was responsible for a number of innovations in the schools. He was an active member of the National Education Association.



DR. WM. M. DAVIDSON,
Pittsburgh, Pa. Died July 27, 1930.

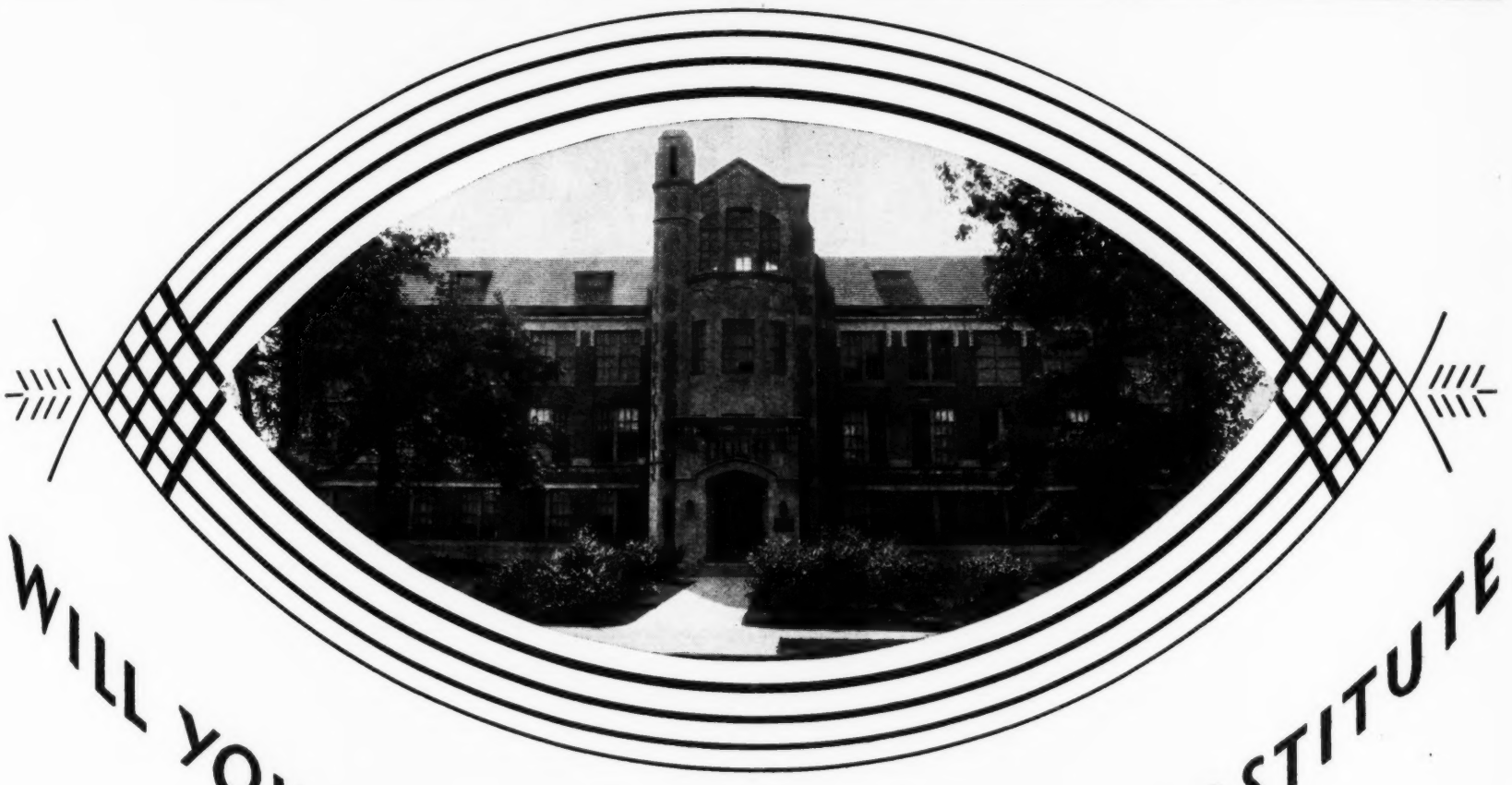
GRADUATION OF LOS ANGELES JANITOR-ENGINEERS

A unique and impressive ceremony was held on June 14, on the campus of the Polytechnic High School at Los Angeles, when 500 graduates and their friends participated in a banquet which preceded the issuing of diplomas to those who had completed a two-year course in the science of maintenance and upkeep of public schools. These graduates had completed the prescribed course and had served successfully in the trade for six months, which entitled them to the diplomas. All of the graduates are employed by the Los Angeles board of education.

Following the dinner, the graduates, listened to an address by Mr. W. E. Record, business manager of the Los Angeles board of education, who complimented them on their fine showing and stated that the course had resulted in better maintenance and economy, making this branch of the educational service to rank high among the school system. Mr. H. A. Campion, principal of the Trade School, acted as toastmaster. He introduced Mr. J. L. Van Norman, president of the board of education, who stressed the fact that the dignified work of the school custodians had helped materially in winning the respect of the general public. Mr. Frank A. Bouelle, superintendent of schools, spoke of the present-day custodian as compared with the janitor of thirty years ago. Mr. Robert Odell, past president of the board of education, reiterated that the craft of the custodians of today is a scientific calling. Mr. J. B. Beman commented on the honesty of the caretakers of the schools. Mr. J. C. Austin, president of the Los Angeles chamber of commerce, spoke on maintenance of school buildings as being head and shoulders above all others.

Mr. George Wright, superintendent of custodians, was eulogized for his remarkable work as a leader of men. Mrs. W. E. Record was given a bouquet of flowers by the women custodians of the schools.

After the speeches, diplomas were given to the graduates by a group of four school officials.



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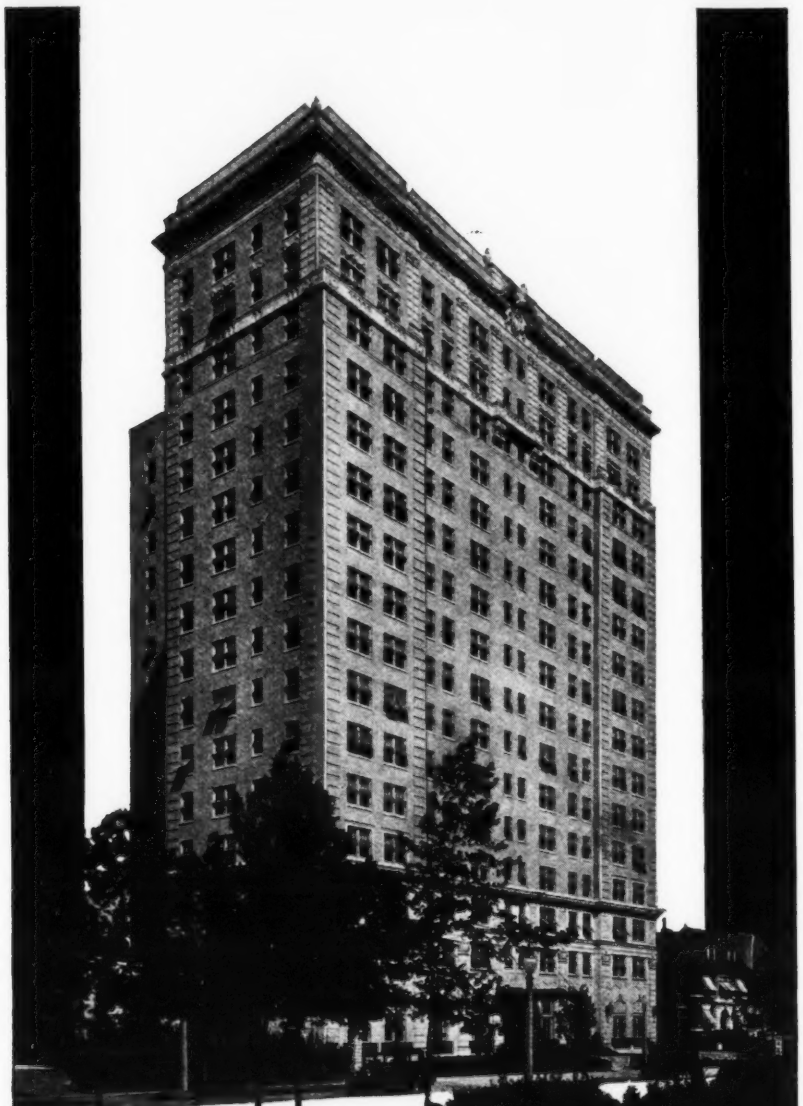

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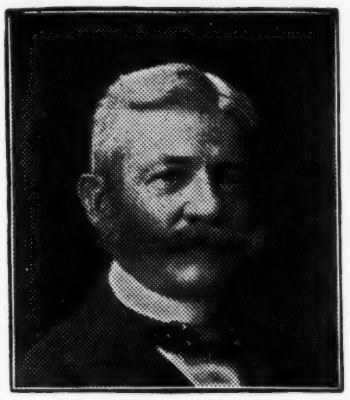

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CINCINNATI REORGANIZES

A radical reorganization of administrative division of the Cincinnati, Ohio, schools was effected on July 1, with the placing of the schools under the manager plan. The outstanding change was the placing of responsibility for administration on the superintendent, who becomes in reality a public-school manager. Formerly, the educational responsibility was vested in the superintendent, financial responsibility in the clerk-treasurer, and business responsibility in the business manager.

Under the unit-executive plan as operated at present, the present business manager, Mr. C. W. Handman, becomes assistant superintendent in the department of business, reporting to the superintendent of schools.

The departments of education and business administration constitute two main departments, with bureaus of housing, supplies, lunchrooms, and finance, the latter to be developed as a central accounting and budgeting department.

The new plan is the result of a special study of the school system made three years ago by the Cincinnati bureau of governmental research. The two outstanding advantages of the plan are its economy and clarity.

SCHOOL ADMINISTRATION

♦ The board of education of Canton, Ohio, has abolished seven kindergarten classes. The cost of operating the kindergarten, exclusive of light, heat, power, gas, water, and janitor service, was $1,596.35 per room. The action of the board was based upon the fact that it could not provide all sections of the city with kindergartens, hence concluded to abolish all of them.

♦ At Pasadena, Calif., 1671 mothers were invited to vote on the question of blue uniforms for junior-high-school girls. The number of mothers who voted affirmatively was 1468. Another question asked was "Do you favor a simple summer dress of printed or plain cotton material and complying with certain regulations, to be worn during the spring and fall months?" This question met with the approval of 1161 mothers of the 1293 who replied. The dresses will in no sense be uniforms. The "no's" were in the majority on the third question: Whether a summer uniform of cotton material should be worn. Basing its decision on the result of the questionnaire, the board of education announced that regulation uniforms will be worn by junior-high-school girls during the coming school year except in the spring and fall, when other dresses, subject to approval by the board may be worn.

♦ "Every accident is a manifestation of inefficiency. Somebody has failed to do what he should" said Gordon C. Graham, safety engineer of the Detroit board of education recently in a talk before school custodians.

The age-grade situation in the rural schools of North Carolina is not as favorable as in the city schools. Approximately 65 out of every 100 city children enrolled are of normal age for their grade, whereas in the rural schools, only 52 out of every 100 children are in this group.

The percentage of city children of normal age is higher in every grade than that for rural children. In the elementary grades, the average percentage in favor of city children is 14; whereas in the high-school grades there is a difference of nearly 12 per cent of normal-age children.

The least difference between normal-age percentages in rural and city schools occurs in the first grade, where the city percentage of normal age exceeds the rural percentage for the same grade by 10.1. The greatest difference is in the seventh grade, where the percentage of normal age is 18 per cent greater in the city systems.

♦ In order to help the unemployment situation the board of education of Springfield, Ill., will allow the women janitors in the schools two months of summer employment.

♦ Milwaukee, Wis. The school board has adopted a recommendation of Mr. George O. Strehlow, a member, prohibiting the use of public playgrounds for carnivals and other amusement enterprises.

♦ Dalton, Mass. Beginning with September, a new schedule of classes will go into effect in the high school. It is planned to add a period to the school day in order to take care of the new classes to be added.

♦ Milwaukee, Wis. Owing to the alleged refusal of the board of School Dist. No. 1 of the town of Wauwatosa to coöperate in carrying out the legal requirements as to the distribution of assets and liabilities, the school board faces unique difficulties with the opening of the school year. The district board has been notified that the city school board will no longer undertake the education of children from those parts of the district not annexed to the city. About 380 children will be affected by the order.

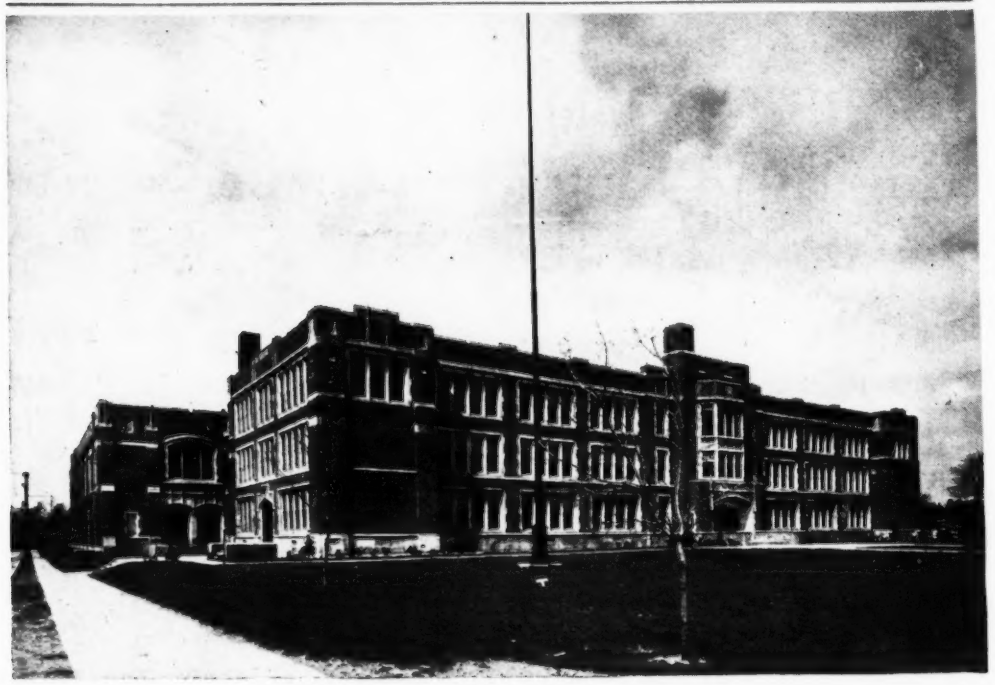
♦ Detroit, Mich. A plan to replace 150 policemen on part-time school traffic duty with college-trained students of the City College has been proposed by the local police department. Under the plan, the college students will be trained for traffic duty, thus releasing the policemen for traffic duty or for crime detection.

♦ Canton, Ohio. The school board has adopted a report of Supt. J. H. Mason, recommending the adoption of new textbooks to replace outworn and obsolete classroom texts now in use. The report revealed that many of the texts were obsolete, which was the basis for the changes. A separate communication gave recommendations for textbook adoptions growing out of the recommendations of the committees.

♦ Grand Rapids, Mich. Representatives of labor organizations recently presented a request to the school board asking for a standard five-day week on school-construction work. The request for the short week was made to aid in meeting the unemployment situation.

♦ Owosso, Mich. A budget totaling $328,972, of which $231,039 will be raised by taxation, has been adopted by the board of education. The largest item is $155,000 for teachers' salaries.

♦ After several years of litigation the action of the board of education of Huron, So. Dak. against H. W. Whitman, treasurer, for the recovery of $52,000, was brought to a close. The money was lost through a bank failure. Whitman could not be held responsible because it could not be proven that he knew that the bank was insolvent.



Royal Oak Senior High, Royal Oak, Michigan.
(Frederick D. Madison, Arch. John Douglas Co., jobbers; Main Plbg. & Htg. Co., plumbers.)

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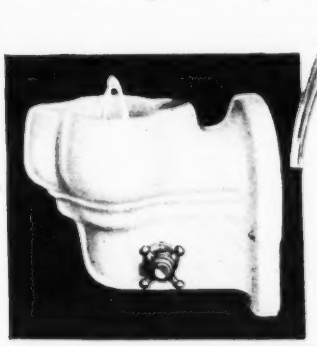
In public schools and in parochial schools the specification for sanitation is Halsey Taylor Drinking Fountains. In a variety of designs that harmonize with any architectural plan—and more important, sanitary! Patented features make them so—see Sweet's or write . . .

The Halsey W. Taylor Co., Warren, Ohio



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The Specification for Sanitation . . . .

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TEACHERS' SALARIES

ADOPT TWELVE-PAYMENT SALARY PLAN

The school board of Kalamazoo, Mich., has recently adopted a twelve-payment plan for compensating members of the teaching staff. The plan is based on a ten-months' school year consisting of 200 days actual teaching time, and is intended to help the teachers during the long summer vacation period. A feature is the provision for making the twelfth payment in the middle of July.

The rules governing the plan read as follows:

Second. Teachers shall be paid one twelfth of the annual salary upon the first of each month, except July, August and September. At the close of the school year in June the teachers shall receive the tenth and eleventh installments of their salary and on or about the fifteenth of July following, they shall be paid the twelfth installment; provided, that any teacher whose length of service shall not cover the full time of the contract shall, if the remaining terms of the contract have been fulfilled receive as many 400ths of the eleventh and twelfth installments as there have been days actually taught by her, or him, during the year, unless resignation of the said teacher is caused by personal sickness, in which case she shall on recommendation of the superintendent and educational committee, receive as many as 200ths of the eleventh and twelfth installments as there have been days actually taught by her, or him, under contract.

Third. Any teacher secured for less than a year shall under the same conditions, receive as many 200ths of the eleventh and twelfth installments as there have been days actually taught by her, or him, under the contract.

Fourth. Teachers excused from duty on account of personal sickness shall be allowed such absence without salary deduction for a total not to exceed ten school days in the school year, and three days' full time pay shall be allowed for absence caused by death in the immediate family.

THE RICHMOND SALARY SCHEDULE

The board of education of Richmond, Ind., has adopted a new salary schedule which goes into effect September next, as follows:

Basic Schedule

(Minimum based on no experience.)

1. Two years of standard normal-school training, minimum, $1,000; maximum, $1600; additional maximum, $1850.

2. Three years of standard normal or college with bachelor's degree, minimum, $1100; maximum, $1700; additional maximum, $1950.

3. Four years of standard normal or college with bachelor's degree, minimum, $1200; maximum, $1800; additional maximum, $2050.

4. One full year of approved graduate work above bachelor's degree, minimum, $1300; maximum, $1900; additional maximum, $2150.

5. Five years of standard college or university with Master's degree in education or special field of teacher, minimum, $1400; maximum, $2000; additional maximum, $2250.

6. Special teachers' and boys' practical arts, minimum, no schedule; maximum, $2000; additional maximum, $2250.

7. Chairmen of departments—$100 above schedule.

8. Heads of departments (deans and assistant principals), $200 above schedule.

9. Elementary-school principals (40 weeks)—ten teachers or less, $250 above schedule. Eleven to 20 teachers, $400.

10. Secondary-school principals (40 weeks)—not on schedule.

11. Supervisors (40 weeks)—not on schedule.

12. Superintendent and assistant superintendents (calendar month basis)—not on schedule.

Increases in Salaries

1. In April of each year the superintendent shall report to the board on the efficiency of the teachers, principals, and supervisors, with recommendations pertaining to continuance of contract and salary increases. All teachers shall be given a rating for the year by the superintendent, such rating to take into account the reports on teachers by principals and supervisors having jurisdiction over the teacher and such other information as may be in possession of the superintendent. The rating shall be on a five-point scale as follows:

a) Teachers—superior and outstanding.

b) Teachers—excellent.

c) Teachers—good.

d) Teachers—fair, but showing tendency to improve, and, therefore, recommended for retention on the staff for one year.

e) Teachers—not satisfactory.

2. *a*) Teachers rating B or C shall receive yearly increase at the rate of $50 per year during their first six years of experience. Beginning with the seventh year of experience the teachers rating B or C shall receive annual increments in salary of $75 up to the maximum for their class.

b) Teachers rating A shall receive annual increases at the rate of $75 during the first six years of experience, and at the rate of $100 during the seventh to tenth years of experience until the maximum for their class has been reached.

c) Teachers rating D shall receive no increase but may be retained. Teachers rating E shall not be retained in the system.

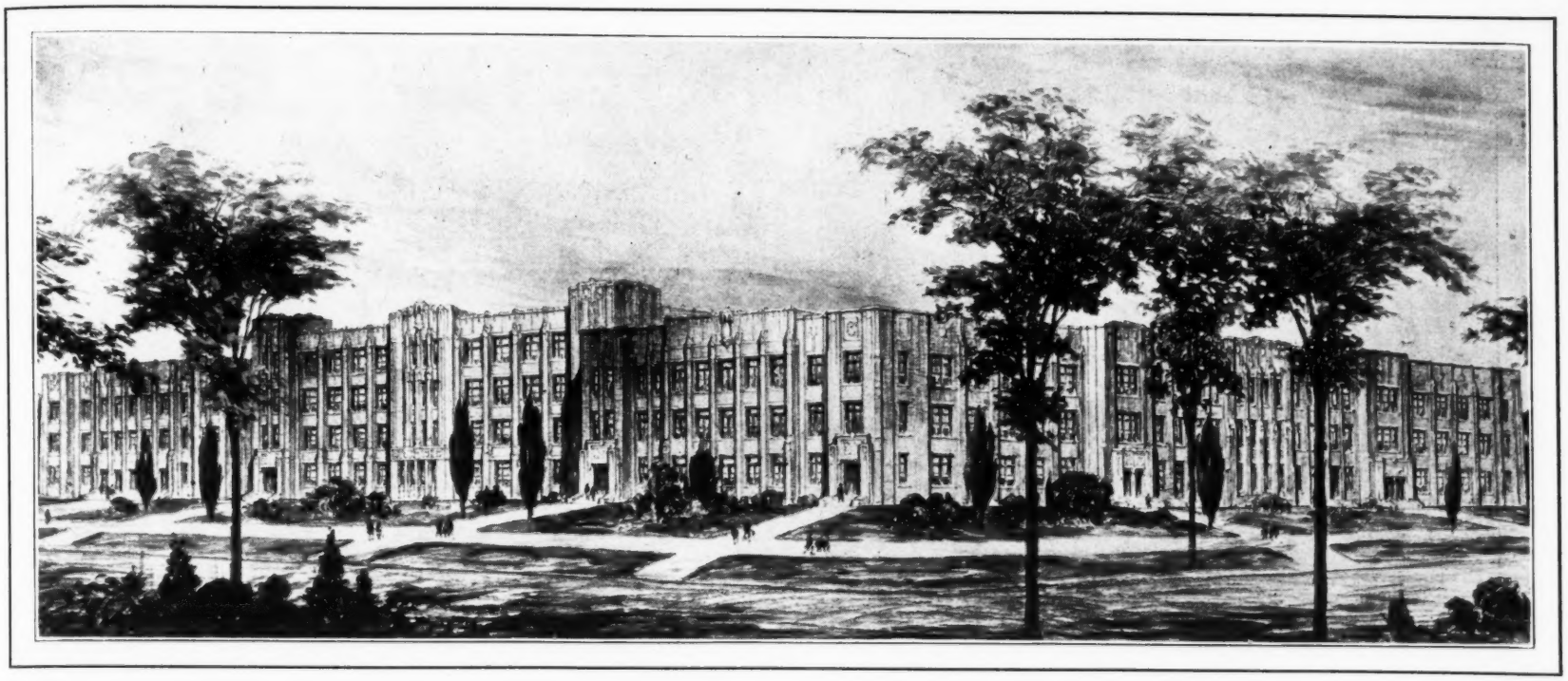
d) All salary increases shall be subject to the provisions in IV-B-3 following.

3. *a*) Yearly increases in salary beginning with the seventh year of experience will be on condition that the teacher has during the first six years of experience secured at least five semester hours of credit in approved college or normal school, or eight semester hours in approved university extension or correspondence courses, or not less than three hours in summer school and four hours in extension work. It is preferred that the work be done in approved summer school, and in all cases the credit must be in courses which are in advance of the highest grade of training previously secured by the teacher.

b) All standard credit hours shall count toward the qualification for the next higher salary classification. Whenever a teacher has completed thirty semester hours of advance college or university work he shall be entitled to transfer in salary classification and adjustment in salary beginning with the following school year. In cases of transfer from class 2 to 3, or from class 3 or 4 to 5, the degree requirement must be fulfilled.

(Concluded on Page 86)

Chicago furnishes another outstanding installation of modern washroom service



The new Austin High School, one of the city's latest and finest, installs the new

"SF" Model

Sani-Dri

One of Chicago's latest schools to be equipped with the new model Sani-Dri is the new Austin High School. This handsome school building was designed to meet the needs not only of today but of the future. Its equipment includes all the worth-while appointments that help to make the school day comfortable and pleasant.

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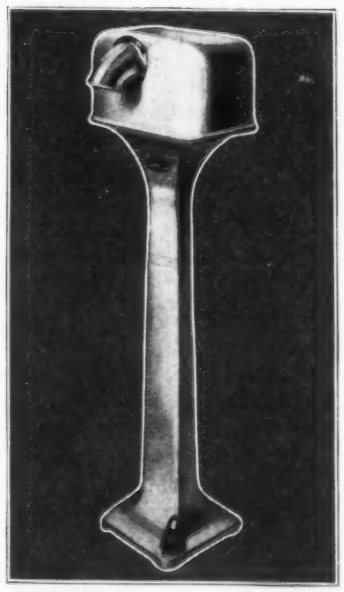

The new "SF" Sani-Dri has twelve betterments, all of which are described in the new booklet, "The Airway to Efficiency," just off the press. If you have not yet received a copy of this booklet, fill out and mail the coupon below and a copy will be mailed to you at once.

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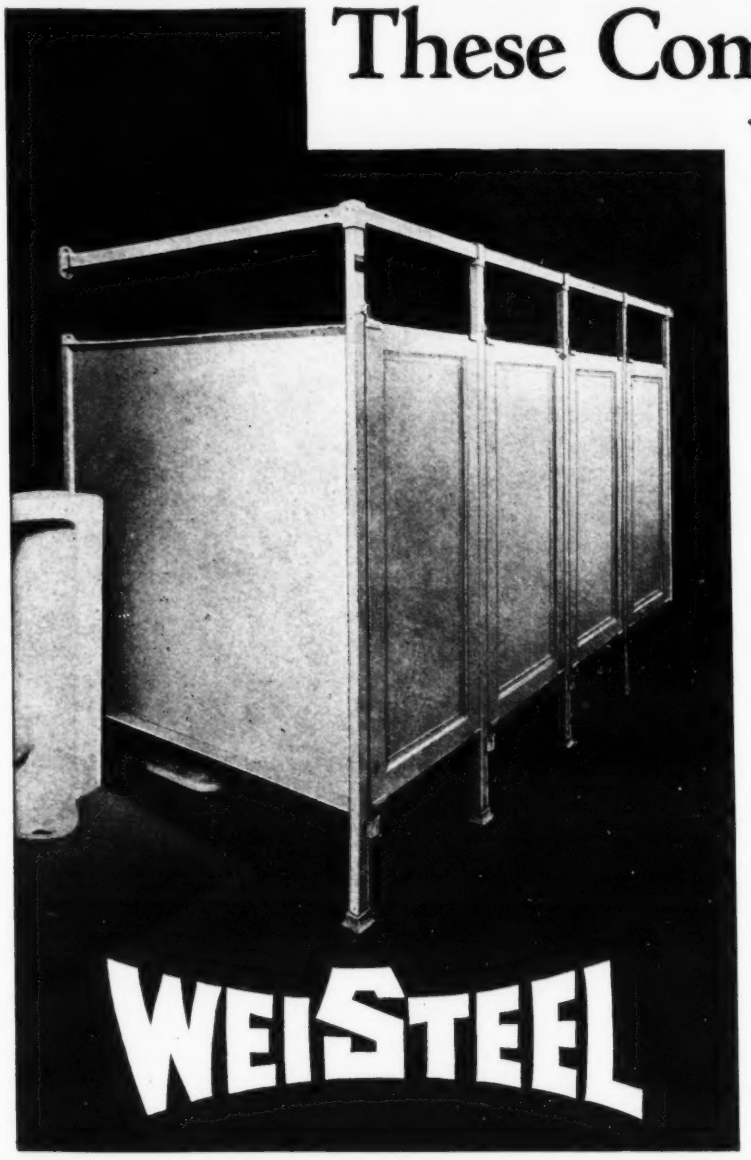


These Compartments Are Worth Remembering

SOME day you will be faced with the necessity of choosing toilet, shower and dressing room compartments, either for a new building or for rehabilitation work in one of your existing structures. WEISTEEL Compartments offer so many real advantages that they are well worth remembering until that time comes.

Exclusive principles of design and construction, such as the V-Rail reinforcement which is integral, with the panel and posts interlocked and welded, make WEISTEEL Compartments unusually strong and able to endure the rough treatment which school toilet compartments inevitably receive. The ingenious reinforcement of door stiles and rails, the simple and easily adjusted foot and wall fittings, the completely enclosed gravity hinge—these are points well worth consideration.

Remember the name WEISTEEL—remember that when you are ready, you can receive full information and suggestions based on our more than fifty-four years of experience by writing to this company. It will place you under no obligation to get the whole story about WEISTEEL Compartments.

THE HENRY WEIS MANUFACTURING CO., INC.
Elkhart, Indiana

(Concluded from Page 84)

Additional Maximum

1. All teachers, principals, and supervisors, at maximum salary, who have been in the service of this system for fifteen consecutive years, beginning with the sixteenth year of service, may receive ten yearly increases of $25 each up to the additional maximum for their class, on condition that since the teachers' tenth year of experience and since April 1, 1930, the teacher shall have completed at least four hours of advanced credit in an approved such credits to be in education or the teacher's such credits to be in Education or the teacher's special field. The annual increase on the "additional-maximum" schedule, after the twentieth year of service, shall be contingent upon the teacher completing an additional four hours of advanced college or university study and credit.

2. All increases on the "additional maximum" schedule shall be contingent upon the teacher rating A or B.

3. For the year 1930-31, teachers otherwise eligible for "additional maximum" schedule may substitute either of the alternatives *c* and *d* under E (requirements for bonus).

TEACHER SALARIES

The board of education of Moline, Ill., has denied a request of the teachers to increase the maximum salary from $1,500 to $1,600. One of the reasons was that the Moline maximum compares favorably with cities in this vicinity as indicated by the following list: Kewanee, $1,282; Galesburg, $1,300; Peoria, $1,500; Davenport, $1,500; Silvis, $1,500; Decatur, $1,525; East Moline, $1,600; Rock Island, $1,600 for some and $1,100 for new schedule; Elgin, $1,600.

RULES GOVERNING PROFESSIONAL STUDY

The school board of North Andover, Mass., has adopted regulations governing bonuses for professional study. The sliding scale provides substantially larger bonuses for teachers long in service than it offers to the younger teachers.

Beginning in January of the year following the completion of a satisfactory unit of training during service, there will be added to each teacher's salary a bonus for three successive years. The training must be the equivalent of six semester hours of approved professional study and worthy of advanced institutional credit. No bonus will be given for smaller units separately, nor credit for unfinished work, nor for work too similar to work previously undertaken.

Under the rules, teachers who have rendered two to five years of successive service will be given a bonus of $50; those who have given 6 to 10 years of service, $75; 11 to 15 years of service, $100; 16 to 20 years of service, $125; 21 or more years, $150.

A teacher who receives a bonus for one six-hour unit of study is not eligible to receive a bonus from a second six-hour unit. Only one bonus may be received by a teacher in any one year, and such bonuses are not cumulative.

The school board reserves the right to limit the amount of training in service which a teacher may take in order to protect the health of the teacher and the efficiency of his or her service. Training for bonus credits must be approved by the superintendent before the study is undertaken and all marks received must be filed with the superintendent immediately.

TEACHERS AND ADMINISTRATION

♦ The New York City board of education has 3,446 men and women on the eligible list for teaching positions still unappointed. Over 4,000 graduates of 1930 have applied for examination. Some 700 of this number are expected to drop out, leaving the number of unemployed teachers at something over 6,000.

♦ The board of education of Grand Rapids, Mich., has fixed the age limit of teachers at 70 years. The rule says: "No member of the education department, except those holding emeritus positions, shall be eligible to reappointment for a school year whose age will be 70 years or more on the first day of that school year. This rule shall become effective at the beginning of the school year 1931-32."

♦ A commotion was created at the meeting of the Somerville, Mass., school committee when that body appointed Mrs. Marion I. Whitney as teacher. The appointment was vigorously opposed on the claim that Mrs. Whitney employed a maid, operated an automobile, and had a husband able to support her.

♦ Salem, Mass. Upon the recommendation of Supt. G. M. Bemis, the school board has voted to continue for another year the cumulative plan for salary allowances in cases of personal illness. The plan is retroactive over a two-year period. Under this plan, a teacher who has not been sick during two years of service will receive full pay for ten days when she becomes ill. Only five days with pay are allowed the first year.

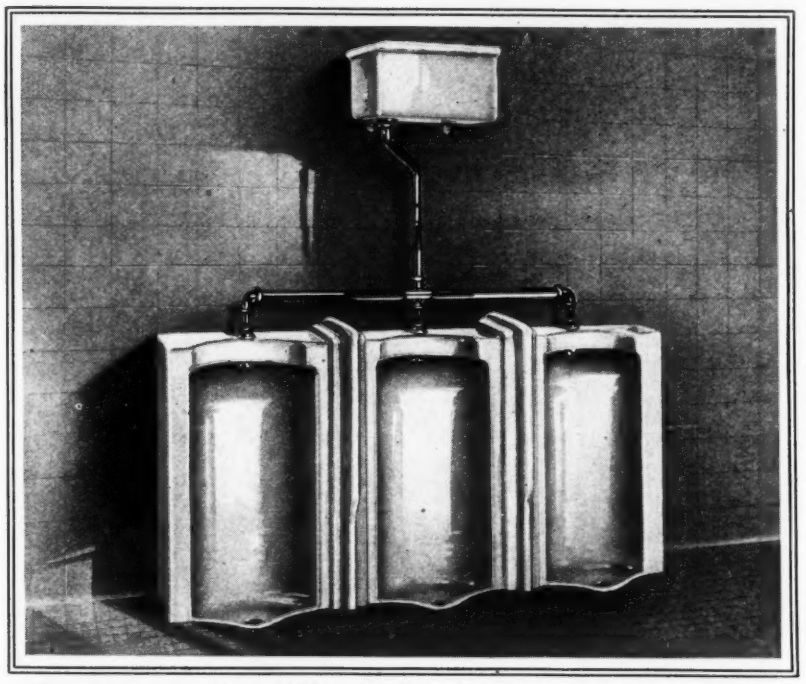
♦ Knoxville, Tenn. The school board will next year enforce a rule, which requires that teachers shall undergo physical examinations before being allowed to teach.

♦ Detroit, Mich. Beginning with the new school year in September, all students entering the Detroit Teachers' College will be required to take a full four-year course before being allowed to teach. The enrollment at the Teachers' College this year will be greatly reduced, due to the raise in the standards and the oversupply of teachers.

BOSTON TEACHERS FOR BOSTON

♦ Boston hereafter will employ none but Boston teachers. Economic conditions and the continued unemployment situation, coupled with the fact that 1,000 Boston school teachers, graduates of the local teachers college and residents of the city are out of position, caused the most drastic action ever taken in the history of the Boston school committee. The new rule provides that "No person shall be appointed to substitute or temporary service as a teacher, or as a member of the supervisory staff who is not a legal resident of Boston, and no person shall be appointed to any position in the employ of the school committee after January 1, 1931, who is not a legal resident of the city of Boston, provided that this order shall not affect those already on the eligible lists or on civil service lists for Boston service nor shall it affect those who have been admitted to the teachers college up to that date.

1855 • SEVENTY-FIFTH ANNIVERSARY • 1930



Latest and most sanitary of Urinal stalls is this Crane appointment, C 15510

"Building schools for comfort and for Health"

An editorial in a recent issue of an educational journal ends its discussion of building schools for comfort and for health by commenting, "Undoubtedly there will still be greater improvements in schoolhouse building and the superintendent should remember that for every comfort that is provided, dividends will be paid in added teacher efficiency, in fewer pupil failures, and in a happier, healthier school community."

This is not mere prophecy, it is certainty! The Crane experience, which covers three-quarters of a century, the constantly changing Crane line stand as proof that not once during the past 75 years has school building stood still. One need seek no further than the past few months for examples of constant progress. In them, Crane Co. has designed a valve which protects against infections from back siphonage of polluted water into the main lines; has made, under the direction of medical authorities, closets in sizes that build health habits among children.

A trip to the Crane Exhibit Rooms, an examination of the school materials displayed there, offers a complete view of the tremendous changes that are occurring in school sanitation. You are cordially invited to visit the Exhibit Rooms, and to send for your copy of Plumbing Equipment for Schools.

Valves CRANE *Fittings*

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Then came the Dayton Safety Ladder. Staunchly it shouted, "Lemme alone! Keep your hands off me! I'll stand on my own feet! You never saw *me* fall down on *any* job." And *two* men worked. . . .

The Dayton Safety Ladder won't topple, can't slip. Never slides. It's strong, light, straight-backed, with a roomy, protected platform which has an auxiliary step giving added height if needed. Made in sizes 3 to 16 feet. Moderately priced.

Type "B" Dayton Ladder
A smaller, popular-priced safety ladder for all purposes. Seven sizes.

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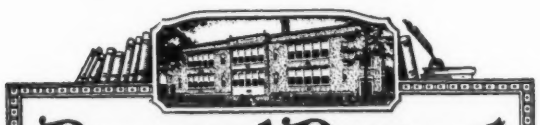


Personal News of School Officials

♦ Mr. H. C. Roberts, secretary of the school board of Sioux City, Iowa, has been reëlected for his twelfth consecutive term.

♦ Mr. John P. Butler has been reëlected as president of the school board of Madison, Wis.

♦ Mr. John E. Baumgartner has entered upon his eighth year as secretary of the school board of Davenport, Iowa.

♦ Mr. R. H. Williams has been reëlected secretary of the school board of Council Bluffs, Iowa.

♦ Mr. O. T. Mercer, of Corning, Iowa, has been reëlected for another year as secretary of the school board.

♦ Mr. Cyrus Barfoot has been reëlected as secretary of the school board at Decorah, Iowa.

♦ Mr. H. L. Weaver has been defeated as president of the school board of Lake Placid, N. Y., after a service of twenty years.

♦ Mr. E. A. Benson has been reëlected as secretary of the school board of Toledo, Iowa.

♦ Mr. A. C. Haden has been elected member of the school board of McAlester, Okla., to succeed Ed. Cornell.

♦ Mrs. Ray B. Elliott has been elected a member of the school board of New Castle, Pa., to succeed Mrs. Rose N. Nothdurft.

♦ Mr. D. U. Van Metre and Mr. H. E. Hudelson are the new members on the school board at Mt. Vernon, Iowa.

NEWS OF SUPERINTENDENTS

♦ Mr. E. W. Ellis, of East Wareham, Mass., has been elected superintendent of schools at Farmington, Conn.

♦ Mr. Roy Fetherston, of Ely, Minn., has taken up his duties as superintendent of schools at Monmouth, Ill.

♦ Mr. C. L. Kulp has been elected superintendent of schools at Ithaca, N. Y., to succeed the late F. D. Boynton.

♦ Mr. T. L. J. Powell has been elected superintendent of schools for the York Consolidated School District at Marysville, Ohio. He succeeds W. C. Judy.

♦ Mr. W. S. Dimmett, of Rock Falls, Ill., has been elected superintendent of schools at Forest Park.

♦ Mr. C. J. Folk, of Bradner, Ohio, has been elected superintendent of schools at Green Springs.

♦ Mr. V. O. Tolle has been elected superintendent of schools at Lordsburg, Ohio, to succeed J. T. Smith.

♦ Mr. W. F. Smith has been elected superintendent of schools at Elwood, Ind., for a three-year term.

♦ Mr. A. D. St. Clair, of Granville, Ohio, has been elected superintendent of schools at Washington, Ohio. He succeeds C. A. Bruner.

♦ Mr. W. E. Hammond, of Millburne, N. J., has been elected superintendent of schools at Keene, N. H. Mr. Hammond succeeds W. C. T. Adams.

♦ Supt. E. E. Hadley, of Milton Center, Ohio, has been reëlected for another school year.

♦ Mr. H. S. Carroll, of West Liberty, Ohio, has been elected superintendent of schools at Belle Center.

♦ Supt. D. L. Musselman, of Risingsun, Ohio, has been reëlected for another year.

♦ Supt. M. R. Menschell, of Wapakoneta, Ohio, has been reëlected for a three-year term.

♦ Mr. J. N. Turner, of St. Paris, Ohio, has been elected superintendent of schools at McConnellsville.

♦ Mr. G. R. Bryan, of Manchester, Ohio, has been elected superintendent of schools at Amanda.

♦ Mr. W. C. Goble, of Nashville, Ind., has accepted the superintendency of a consolidated school in Grant county, near Swazee.

♦ Mr. L. G. Downing has been elected superintendent of schools at Hollansburg, Ohio, to succeed Ray Wilson.

♦ Mr. H. J. Arnold, of Altamont, Ill., has been elected superintendent of schools at Kansas.

♦ Mr. Albert Steffen has been elected superintendent of schools at Ladd, Ill., to succeed C. F. Lee.

♦ Mr. G. W. Cox, of Atlanta, Ohio, has been elected superintendent of schools at Caledonia.

♦ Mr. C. W. Howard, of Holcomb, Kans., has been elected superintendent of schools at Palo Alto, Calif.

♦ Mr. S. H. White, of Amenia, N. Y., has been elected superintendent of schools at Chester, Vt.

♦ Mr. W. B. Marks, of Fincastle, Va., has gone to Clarendon.

♦ Mr. E. C. Coatney, of Yates City, Ill., has been elected supervising principal at Assumption.

♦ The superintendency union of Somerset-Swansea, Mass., has been dissolved. Supt. H. Freeman Bates who managed the two school systems for over eight years will leave Somerset. Frank C. Cleace, principal of the Case High School, will direct the Swansea Schools.

♦ Supt. W. S. Johnson, of Morgan, Minn., has been reëlected for another school year.

♦ Mr. P. D. Koeppe, of Oakwood, Ohio, has been elected superintendent of schools at Andover.

♦ Dr. Robert B. Taylor has been elected assistant superintendent of schools of Norristown, Pa., for a four-year term, beginning with July, 1930.

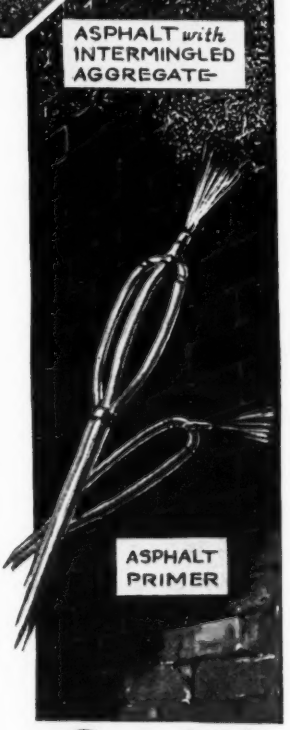
♦ Mr. F. R. Wegner, of Ithaca, N. Y., has been elected superintendent of schools at Little Falls.

♦ Supt. H. L. Bates, of Jackson, Ohio, has been been reëlected for another school year.

♦ Mr. Lloyd Heller has been elected superintendent of schools at Milton, Ind., to succeed J. H. Scholl.

♦ Mr. J. S. Kadesch, formerly principal of the high school at Medford, Mass., has been elected superintendent of schools. Mr. Kadesch succeeds H. H. Howes, who has become principal of the Normal School at Hyannis.

♦ Mr. Ward Winnett has been elected superintendent of schools at Thompson Falls, Mont., to succeed E. Ostergren.



3 FACTORS

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An Important School-Cafeteria Decision

The board of education of Houston, Texas, has been confronted during the past two years with an awkward administrative problem which found its way into the law courts, and finally to the highest court of the state for adjudication. The facts briefly stated are these:

In the vicinity of the schoolhouses at Houston, so-called "lunch wagons" were stationed, catering lunches and soft drinks to the pupils. These lunch wagons were also patronized by others and became a sort of rendezvous for undesirable characters who used these to cultivate contacts with the high-school students.

The Houston board of education, after viewing the situation in all its bearings, adopted a rule whereby all pupils who did not go home for their meals were obliged to eat their noon meal at school. They could either purchase their lunches at the cafeteria, or eat such lunches as they had brought from home. At any rate, they were forbidden to patronize the lunch wagons or to loiter about them during luncheon hour.

This rule was resented by the owners of the lunch wagons. One of these, who did business across the street from one of the schools, refused to allow his daughter, a 13-year-old girl, to remain at the school during the luncheon hour. The school authorities were willing to regard the particular lunch wagon as the home of the girl, but the owner, in order to effect a care against the board of education, sent his daughter to another lunch wagon for her meals.

In consequence the girl was suspended, whereupon the owner of the lunch wagon brought a suit against the school authorities. He was supported in his suit by other lunch-wagon owners and by a manufacturer of soft drinks. The trial court sustained the school district's plea in abatement, because of the appellant's failure to apply to the state board of education for remedy.

Board Loses in Lower Court

An appeal to the local court of appeals resulted in sustaining the contentions of the lunch-wagon operators. Thereupon, the board of education appealed the case to the supreme court of the state, where finally the Houston board of education was sustained.

At this point the case assumes considerable interest, not so much from the standpoint of private enterprise running counter to public interest, but in clarifying and establishing the powers of a board of education. The supreme court in reciting the story of the case said:

"The court of civil appeals reversed the judgment of the trial court, holding that the method of suspension or expulsion provided in the compulsory-education statute was mandatory and exclusive and that the suspension of appellant's child was unauthorized and void, and should be enjoyed. During the pendency of appellee's motion for rehearing, the court of civil appeals has certified a number of questions for the determination of the supreme court. In view of the conclusion reached by us as to a proper answer to the question as to whether the provisions of Article 2898 are mandatory, the remaining questions become immaterial, as the answer made by us is decisive of the entire controversy.

The opinion then quotes Article 2898 of the law dealing with compulsory education, which places the disposition of the offending child into the hands of the courts. It seems that appellant, namely, the father of the girl, based his case upon the claim that the authority over the matter was in hands of the court rather than the board of education. Under this construction the school authorities would fade from the picture entirely.

The supreme court, however, placed a different construction upon the article when it said:

Judge Discusses the Law

"If the procedure defined the Article 2898 must be followed in all cases when a child by its conduct brings itself within the terms thereof, then the control and management of our public schools, so far as the observer of rules is concerned, would be transferred from the board of trustees to the juvenile courts. Under such circumstances, the board would be shorn of power to prescribe punishment of any character whatever in all cases where pupils should persistently violate the rules so as to become incorrigibile within the meaning of said article.

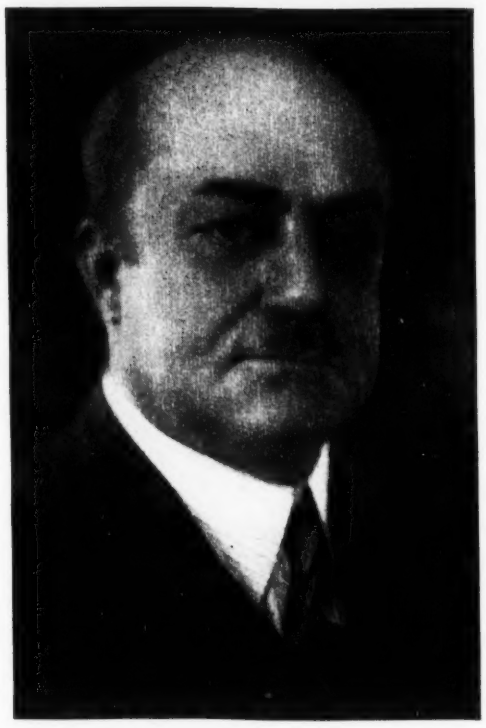
"It will be observed that the act does not limit the reporting of pupils to the attendance officer whose conduct brings them within its terms in regard to a suspension or expulsion, but the broad language used covers any case where a pupil has by its conduct come within the descriptive terms of the statute. Such a construction would just as effectually deprive the school authorities in the instant case of inflicting punishment of any nature whatever upon appellant's child because of a persistent violation of the rule promulgated by the board as it would prevent the child's suspension or expulsion. The school authorities would be required, by the plain terms of the statute, if the same be mandatory, to report all such children for action by the juvenile court instead of inflicting various forms of punishment which might be prescribed by the official board.

"We think appellant could complain with the same degree of consistency if his daughter had been required to perform extra schoolwork or to remain a given time after school hours each day she violated the rule in question. There could be no answer to this contention that his child was shown to be incorrigible on account of her persistent violation of the rule and was therefore within the statute. If she had in fact become an incorrigible within the meaning and purport of the statute, and its terms be mandatory and exclusive, then it would necessarily follow that she would be subject to be dealt with only under the procedure therein outlined.

"It is difficult to reach the conclusion that it was within the contemplation of the lawmaking body that the enforcement of discipline in the public schools should be shifted from the body which the legislature has expressly authorized to 'manage and control' them to the juvenile courts of this state. We think it a more reasonable conclusion that the purpose of this statute was to supplement the powers possessed by the board of trustees in order that they might have the advantage and assistance of the juvenile courts when a child should become incorrigible to such an extent that the board of trustees, in its discretion, should deem it prudent to invoke the exercise of the powers conferred upon such courts. To construe the statute as depriving such board of its power to enforce reasonable rules and regulations by such punishment as it might deem reasonable and proper under the existing circumstances would render it inconsistent with the grant to such board of authority to manage and control their public schools.

"We are not concerned with the reasonableness of the rule adopted by the board of school trustees in this case. It was indisputably within the power of the board to enact a rule governing the subject matter which this rule covers, as it was designed to protect the health of the pupils during the hours they were committed to the care of the school authorities.

"It will be assumed by the courts that such authorities will declare the rule invalid and inoperative if any of its terms be unnecessarily harsh, oppressive, or unreasonable. If, on the other hand, it is reasonable, as we must assume in this proceeding, then appellant, who has advised his child to violate the rule and caused her suspension, could be proceeded against under the penal provisions of the compulsory-education law unless he availed himself of the privilege allowed by said law to place his child in a private school." Art. 299, P.C. 1925.



WILLIAM B. ITTNER HONORED
The University of Missouri conferred upon William B. Ittner, of St. Louis, the honorary degree of Doctor of Laws. This distinction was granted in recognition of Mr. Ittner's eminent achievements in the field of school architecture. He emphasized the utilitarian character of the modern school structure, and at the same time invested it with grace and architectural beauty. Thousands of school edifices may be pointed to as monuments of his genius.

Power Vested in School Board

Thus an important case is adjudicated. It establishes the fact that a board of school trustees has the power to determine upon regulations designed to promote and protect the physical and moral welfare of the child. The Houston board of school directors is to be commended for fighting the case in hand to the bitter end and thus clarify and define the powers vested in such a body. The decision rendered by the Texas supreme court will obviate future misunderstanding and enable the several school authorities in the state to proceed in the exercise of their duty with a better conception of the powers they can exert.

A SOLUTION FOR THE HIGH-SCHOOL PARKING PROBLEM

The parking of students' and teachers' automobiles at high schools has proved a serious problem in many localities. In a city of any size, with high schools located in crowded or semi-crowded neighborhoods, the problem of the parking of students cars is one which must receive attention. Effective parking and traffic regulations tends to reduce tardiness, truancy, and accidents.

Mr. William C. Morrison, of the Beverly Hills High School, in a recent issue of the *Los Angeles School Journal,* describes a plan used for solving this problem in Los Angeles. Mr. George E. DesRochers, a member of the high-school faculty, has as part of his extracurricular duty the solving and supervision of the parking and moving of cars during school hours.

Coöperating with the Beverly Hills police department and with the Automobile Club of Southern California, a plat map was drawn to scale of all the available parking area in the vicinity of the school. Lots were numbered according to the file in the county surveyor's office. Students and faculty selected their park-

(Continued on Page 93)

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Send For Free Sample and Give it Every Truth-Test

A crystal clear finish that is tough as steel when dry. Impervious to hot water, grease, acids, etc.; cannot be scratched by shoe nails, grit, etc.; cannot be dented, positively does not crack, chip, check, peel or blister; and will not fade or change color.

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Becomes a solid part of the surface to which it is applied: and wears more than twice as long as any other floor finish made, retaining its glass-like brilliance, clarity and newness indefinitely long. A floor protection and preservative combined with a gloss—permanent, clean, colorful floor finish that endures against all wear and destruction which commonly destroys other finishes. Highest efficiency in every respect, and by far the most economical finish on the market.

FLOWS LIGHTLY APPLIED QUICKLY DRIES INSTANTLY

Has lively liquid body: flows lightly, quickly and is applied in a hurry. Dries hard in a short time: can be walked on in a half hour.

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Only finish of its kind that can be applied more than one coat with a brush: will not pick up previous coat. Succeeding coats applied 10 to 15 minutes apart. No waiting, no delay: big time and labor saver.

NO BRUSH MARKS NO LAPPING

No brush marks or lapping, no streaks or lines as experienced with varnish: entire floor a uniform sea of glass clear beauty.

FLOOR MORE EASILY CLEANED

More readily cleaned than other floor finishes: more sanitary and less costly to care for. Can be applied by anyone able to wield a brush. Has withstood every test possible to give, and endorsed by school officials everywhere as the final answer to all floor and furniture finishing requirements.

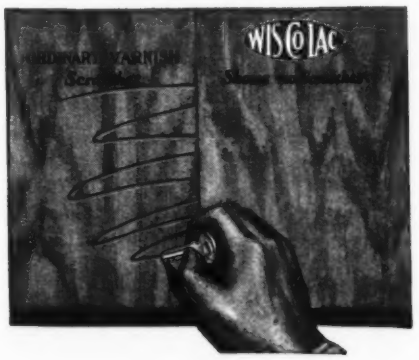
The Floor Finish That Laughs At Hob-Nail. . . . Scuffling Feet and School Yard Grit. . . . .

STEEL TOUGH: GLASS CLEAR

The scraping and scratching and grinding of scuffling shoe-shod feet do not in the least mar or mark the steel tough, glass clear, floor finish of Wis-Co-Lac. Nor does the grit brought in from out-of-doors penetrate or disfigure Wis-Co-Lac. Floors thus remain immune from damage, wear and tear: Wis-Co-Lac protects and preserves the floors, and in itself stays solid and unblemished; a beautiful new, clean, glistening, brilliant floor finish day after day. And only the ordinary after hours wiping up by the janitor's force is necessary: no scrubbing or heavy mopping: a Wis-Co-Lac floor washes off as quickly and clearly as a pane of glass.

THE SCRATCH TEST

An ordinary key, the most treacherous instrument for this test, scraped over any other varnished surface will show scratches, as illustrated. The same process over WIS-CO-LAC will show nothing, as illustrated. Even when



pressed into the wood and dented, the film of WIS-CO-LAC is not broken. Its elasticity will not crack or glaze, as does varnish and other finishes. That is one example of the great difference, and evidence of the "tremendous advantages" in WIS-CO-LAC.

No Wax or Oil: Does Not Attract and Hold Dirt Most Ideal for Kindergartens Particularly

Wis-Co-Lac is steel hard. It is nonporous, nonabsorbing: and containing no wax or oil (like varnish and other floor finishes) dust, dirt, germs, etc., do not adhere to it and become embedded in the floor, nor is its finish oily, waxy and smeary. This not only means quicker cleaning of a floor finished with Wis-Co-Lac, but it also means that a Wis-Co-Lac finished floor is strictly sanitary: and safe for floor use, in Kindergartens particularly. A sample quantity is all you need to convince you: write for a sample quantity, free, right now.

THE WIS-CO-LAC COMPANY, 186 PIERE STREET, PORT WASHINGTON, WISCONSIN
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It illustrates and describes the complete line of Sani Tables for school cafeterias . . . tells why they are used in hundreds of better schools throughout the United States . . . explains why Sani Tables last longer, look better and cost no more than inferior tables. You should by all means have a copy of this book. Send for your copy today. Just fill out and mail the coupon.

Sani Tables are made with wood and metal bases. They are furnished in a wide choice of top materials, including Sani-Onyx, Lino, Linoleum, Rub-Tex Rubber (the locked edge rubber top made in one piece) or Moulded Rubber. Metal base tables are available from Sani in black Japan, white or colored porcelain enamel, or painted in a variety of shades. All of these tables are shown in the Sani Book.

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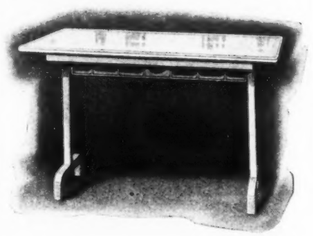
Built by men who know table construction, and who are thoroughly familiar with the strenuous service a school table must endure, Sani Tables are the most satisfactory you could possibly install. Before any table is placed in the Sani line it must measure up to the Sani standards of quality, service and satisfaction.



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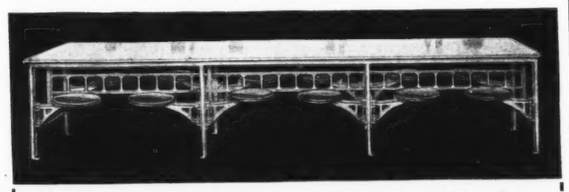

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North Chicago, Illinois A. S. B. J. 8-30

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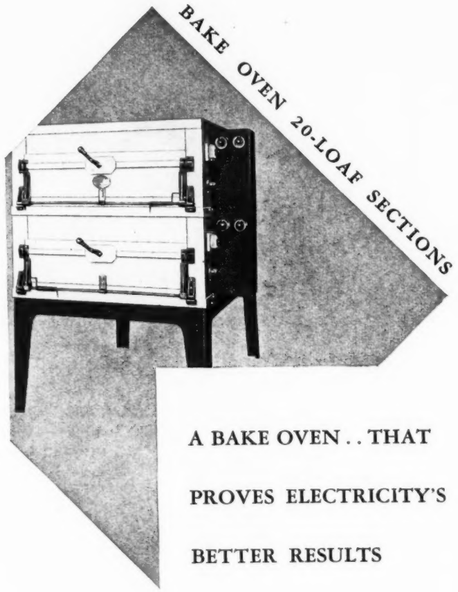

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Service, prompt and efficient, by a coast-to-coast chain of well-equipped shops

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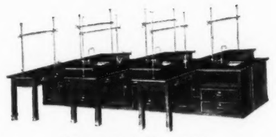
Laboratory Table No. H-1543



Science Desk No. D-523

Science Desk No. D-540

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—is scientifically designed for greatest possible pedagogic service
—comfortably accommodates the maximum number of students
—has greater utility
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There are over 1500 different standard Kewaunee Laboratory Furniture items listed in the New Kewaunee Book. It is the most complete catalog of the industry. It shows several installations—also floor plan blueprints and shows details of Kewaunee construction methods. This cloth bound book is sent to teachers and buyers of laboratory equipment on request. Write for it on institution's letterhead.

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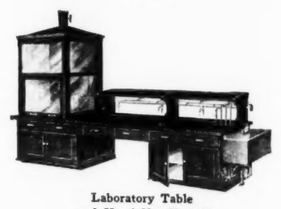
Instructor's Table No. F-1119



Laboratory Table and Hood No. H-1533

Chemical and Apparatus Storage Case No. G-1452

(Continued from Page 90)

ing stations according to choice and were required to park their cars each day in the same place. In cases where conflicts in the selection occurred, the faculty parking committee made the decision. This eliminated headlong driving around in search of a place to park just as the morning bell was ringing. It was a means of making certain of a parking vacancy.

On the reverse side of the plat map was a complete registration and description for each student's car. The record is an exact duplicate of what is required by the Los Angeles police department in tracing lost or stolen cars.

To insure effective observation of parking, traffic, and safety regulations, a committee of twenty boys are on automobile patrol during definitely assigned periods throughout the day. Only with permits from the home and the school office can any student move a car between 8:30 a.m. and 3:30 p.m. Following are listed the results noted after five months' trial:

Practically 100 Per Cent Elimination of the Following:

1. Parking in alleys and vacant lots.
2. Parking in front of apartments and private residences.
3. Loafing in automobiles by students.
4. Driving automobiles without an operator's license.
5. Riding on running boards.
6. Lending and borrowing cars.

Other advantages of the plan noted are as follows:

1. Cars of students, teachers, and other employees are safeguarded during the day.
2. Loafing in the vicinity of the school by strangers and students from other schools is promptly reported and controlled.
3. Careless and reckless driving in general neighborhood of school reduced to a minimum.

Beverly Hills High-School Automobile Registration

The information requested is a necessary part of a plan that has the following objectives:

1. To secure greater safety for the high-school student.
2. To shield the operator from recklessness and blame on the part of others.
3. To increase consideration for the rights of others.
4. To protect property.
5. To prevent withdrawing privilege of moving automobiles during school day.
6. To remove loafers from the vicinity of student automobiles.
7. To enable us to make a complete report of cars that loiter in the neighborhood of the high school to the police department.

A complete card file of cars driven to school by students, teachers, and other employees will be kept in the offices of the school and will be available for instant use in case of theft of cars, tires, or other accessories, or for any adequate reason.

Information requested by police department in case of car theft.

Description of Car

Make ..... Year Model ..... Type .....
Engine ..... Car No. ..... License No. 1929 .....
Number of Cylinders ..... Motormeter ..... License No. 1930 .....
Color of Body ..... Color of Gear ..... Shock Absorbers .....
Wind-wings ..... Tonneau Windshield ..... Color of Wheels .....
Kind of Upholstery ..... Kind of Top ..... Spotlight .....
Speedometer ..... Mileage ..... Horn .....
Locks in Use ..... Bumpers — Front — Rear .....
Insured with .....

Description of All Tires and Equipment

R. F. Tire ..... Mileage ..... L. F. Tire ..... Mileage .....
R. R. Tire ..... Mileage ..... L. R. Tire ..... Mileage .....
Extra Tires ..... Mileage ..... Are any of above retreads? .....
Special marks of Identification .....
.....
Operator's License number ..... Date issued .....
Court citations on operator's license: .....
.....
.....

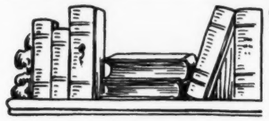
Statement of Student

From the time I leave home in the morning until I return at night

1. I will, while driving, drive carefully, with reasonable speed, and keep the safety of others uppermost in mind.
2. I will not sit in my car during lunch hour or school hours.
3. I will not take a group of students for a "joy ride" during the school day.
4. I will not borrow a car or lend my car to other students.
5. I will not drive up and down alleys near schools nor park on unimproved lots.
6. I will not park in front of apartment houses or residences as long as there are unimproved lots in front of which I may park.
7. I will lock my car when I leave it.
8. I will try to observe all traffic ordinances.
9. I will be courteous and appreciative of the student safety committee and in every way assist them in their service given through the term.
10. I realize, as does my parent or guardian, that he or she is personally liable for damage to life or property, which may result from my negligent operation of the above described automobile.

....
Signature of Student Driver — Signature of parent or guardian legally responsible for car driven by student.

Address ..... H.R. ..... Phone .....



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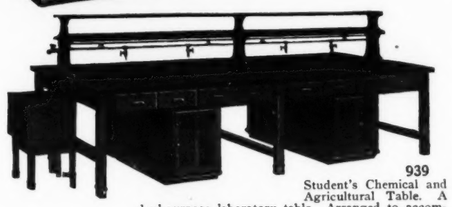
A dual-purpose table serving both Physics and Chemistry instruction. Ample drawer and cupboard space. Two compartments in rear for tubing, etc.



939
Student's Chemical and Agricultural Table. A dual-purpose laboratory table. Arranged to accommodate sixteen students. Open space below provides knee room when seats are used.

No matter what your needs you will find in PETERSON FURNITURE a lasting satisfaction guaranteed by over 38 years of quality manufacturing.

Our complete Catalog No. 16-A of Laboratory, Library, Domestic Science and Vocational Equipment will be mailed upon request.

L-5060
Reading Table of improved construction, assuring absolute rigidity . . . legs equipped with brass sockets.

1135
Student's Biology Table. A double-duty Laboratory and recitation table used where it is preferable to have the students face one way.

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4. Overloaded cars, more than three in a seat, seldom observed.

5. Students cutting classes, off-bounds, during school day, smokers, and other habitual offenders are reported regularly by auto patrol.

6. The result of this close check either causes student to go to work at school or somewhere else.

7. Students living outside of district — giving false addresses were detected by checking address on operator's license against our registration cards.

8. Parking in definite location has resulted in a spread of parking area.

9. "Spread" of parking gives plenty of available space for visiting teachers.

10. Description of car available for instant use by the Beverly Hills Police Department.

11. The daily record of offenses indicates to the principal when a recommendation, that leads to the revocation of a driver's license, should be made.

12. The plan seems to have developed a deliberate safe and sane policy in the loading and unloading of passengers and moving of cars to and from the curb during the congested hours.

13. Increased respect for the automobile laws by the students.

14. Plan has been generally commended by parents. Students and teachers like it.

15. Appreciation on the part of the school of the valued service that can be obtained from the police department, motor vehicle department and the automobile club.

LYNN SCHOOL BOARD CARRIES OUT RECOMMENDATIONS OF SURVEY EXPERTS

Some years ago, it was recognized that the schools of Lynn, Mass., while average in their accomplishments, were not outstanding, and did not attract the attention of the country. As a result, the school board, in 1926, employed Drs. Strayer and Engelhardt, of Teachers' College, to undertake a survey of the school system. The survey was made during the winter of the school year 1926-27 and a report was presented to the school board in May, 1927, in which the chief recommendations were as follows:

1. The immediate enlargement of the central staff of administrative, supervisory, and research workers from three to nine members.

2. The formation of a definite building program to extend over a period of fifteen years and to be divided into five distinct cycles.

3. The adoption of a financial accounting system, based upon the N. E. A. recommendations.

4. The development of a permanent, continuous curriculum-revision program for all the schools, embracing all activities and taking into account individual differences and homogeneous grouping of pupils.

The first step in the program, namely, the enlargement of the central staff, was inaugurated immediately, with the creation of the positions of director of research and statistics, director of physical education and health, assistant superintendent in charge of business affairs, school psychologist, supervisor of upper elementary grades, director of census and attendance. As the work of the new departments developed, it became apparent that some major changes had taken place in the type of education offered to the children in the schools, which emphasized the child as the center of activity and the individual rights and needs of each pupil in the group. The movement was strongest in the elementary grades but its effect was noticeable throughout the system.

A program of standard testing and measuring was introduced through the research department and the results accomplished were published in the local newspaper from time to time. Various types of newspaper publicity were utilized, and the members of the central staff frequently spoke before the various organizations regarding the work done in the schools.

The school committee, which is presided over by the mayor of the city, began to take on a political aspect as the municipal election approached. Certain forces which were opposed to changes in the public schools, and which were especially opposed to changes tending toward a progressive policy, began to make themselves felt, and several candidates for the school committee, who were not openly opposed to the new policy, were understood to be supporters of the "good old days."

One of the factors which entered into the situation was the reaction of a few teachers who had been in the system for a long time and who were not interested in the new policy. Under the state law, teachers go on tenure after they have served three years in one district and have secured their election for the ensuing year. The real fight came when the new staff officers were ready for their fourth election, the election which would place them on tenure and guarantee the continuance of the work for which they had been appointed. At the election in May, 1930, all the teachers were reëlected, but action regarding the department heads was delayed. During the intervening period a number of factors were brought to bear upon the situation in order to obtain a favorable result for the program when the school board met for final action. One of the factors in the situation was a meeting of the teachers' council of the Lynn Teachers' Club. At its meeting, the council discussed the continuance of a progressive type of education and passed a resolution urging the school board to continue the present program and pledging their united support. At the meeting of the school board on June 10, 1930, the board by unanimous vote, reëlected all the supervisors and directors affected by the new progressive policy in the schools.

♦ The voters at Jackson, Mich., will be called upon to cast their votes for four new board members at the annual election to be held on September 2. Three of the new members will be chosen for full three-year terms, while the fourth will serve the remainder of the term of the late W. C. Morrey. The four members whose terms expire this year are C. W. Cruson, F. T. Lockwood, Mrs. W. A. Foote and H. H. Hunt.

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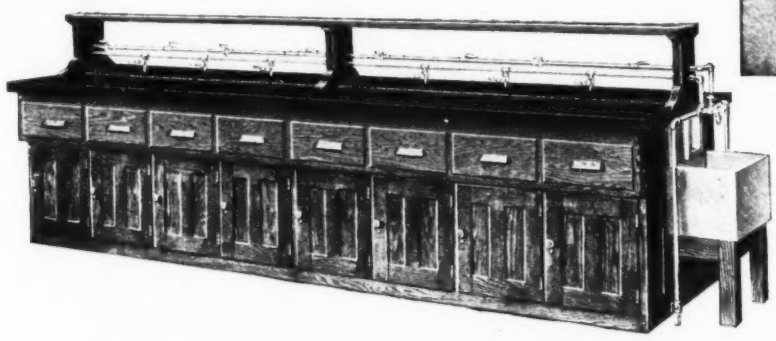

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School-Board News

♦ The school board of Milwaukee, Wis., has decided that the plasterers to be employed during the summer months be placed upon a five-day-week basis.

♦ The Toledo, Ohio, board of education will employ 21 decorators during the summer to renovate the several school buildings. This is the board's contribution to the unemployment situation.

♦ City Manager C. A. Dykstra of Cincinnati, Ohio, at a recent conference with the school officials, urged that joint purchases be made by the city and the board of education. The plan has been proposed in order to obtain the advantages of quantity prices with a considerable saving to the schools.

♦ Grand Rapids, Mich. The board of education has recently occupied its new administration offices in the Davis Vocational School.

♦ The Associated School Boards and Trustees of New York State, with which most of the boards of education outside of New York City are affiliated, have resumed their agitation against teachers' tenure laws and the equal salary laws. In a recent number of the organization's bulletin, a statement is made that "permanent tenure has not proved beneficial." Equal pay has been protested because of its cost.

♦ Fort Lee, N. J. The school board has asked the cooperation of the parents in its efforts to keep the school grounds in proper condition during the summer months. Parents were asked to issue instructions to the children to assist in the work by refraining from destructive activities on the school lawns. The board pointed out that it had given considerable time and expense to the improvement of the school grounds.

♦ Mattoon, Ill. The school board has taken steps to install flood lights on the Kinzel athletic field. It is planned to have 24 reflectors on the field, in each of which there will be two 1,000-watt bulbs, making a total of 48,000 watts on the field.

♦ St. Louis, Mo. The school board has accepted an offer of the Holbrook-Blackwelder Real Estate Trust Company to lease the administration building for 99 years. Under the arrangement, the lessee is required to erect a new building, costing at least $1,000,000. The lease will be on a valuation of $1,250,000 and the rental for the first fifteen years will be $62,500 a year, or 5 per cent on the valuation. It is planned that the school board shall occupy the seventh, eighth, and ninth floors, with a rental of $27,922 a year.

♦ Taunton, Mass. The position of assistant supervisor of music has been discontinued by the school board.

♦ Green Bay, Wis. At the regular November election, the voters will decide whether the board of education shall continue to be appointed, or whether its members shall be elected by the citizens.

♦ Newton, Mass. The school board has refused to approve a proposal of Mayor Weeks that a part of the proceeds of the athletic contests on the high-school athletic fields be turned into the city treasury to reimburse the city for their care and maintenance.

♦ Frederic, Wis. Following a warm mass meeting, the citizens on July 1, voted to close the $50,000 high-school building next term. It appears that a majority of those in attendance were farmers and other rural residents dependent on farming for a living, and they emphasized the high taxes and the low prices received for farm products. Urban members feeling that the annual meeting was merely a matter of form, failed to attend in their full strength.

When the situation was revealed, indignant parents of high-school students demanded a new meeting to meet the conditions. Just what course the dissenting voters will take has not been indicated, but they have threatened to obtain the assistance of the state board of education.

The situation is complicated by the fact that the school board has already signed contracts for the teachers for the next school year.

♦ Williamson, N. Y. The school board has proposed a bond issue of $375,000, the proceeds of which will be used for school-building construction.

♦ Atlanta, Ga. The school board has taken action, under which the final expenditures in the $3,500,000 school-bond issue of 1926 will be made in the near future. Mr. R. R. Ritchie, business manager of the school board, has reported that $236 will be left in various bond accounts after all the contracts now pending are finally settled. This amount was appropriated to the equipment fund, making a total of $480 available for expenditures from that account.

♦ New York, N. Y. Fifteen new schools providing seats for 23,000 children, at a cost of nearly $12,000,000, will be ready for occupancy in September. The schools are located in Brooklyn and Queens boroughs and will eliminate short-time and special sessions for 18,000 students. The present schedule provides for 21 new schools in Brooklyn, at a cost of $18,000,000, which will relieve 200,000 pupils of short and special schedules.

♦ Minneapolis, Minn. Eight school buildings have been given new names under a new plan of the school board. Among the names selected are Nathan Hale, Louis Pasteur, Carl Schurz, Windom, Folwell, and Ramsey. Additional names will be selected in the near future.

♦ Ottawa, Ill. A new school unit is proposed for the high school to meet an anticipated increase of 120 in enrollment.

♦ Supt. J. H. Mason, of Canton, Ohio, is facing a serious problem in providing accommodations for 21,500 pupils when the school term opens. The estimates show that 394 more pupils will be admitted to the high school than were received last year.

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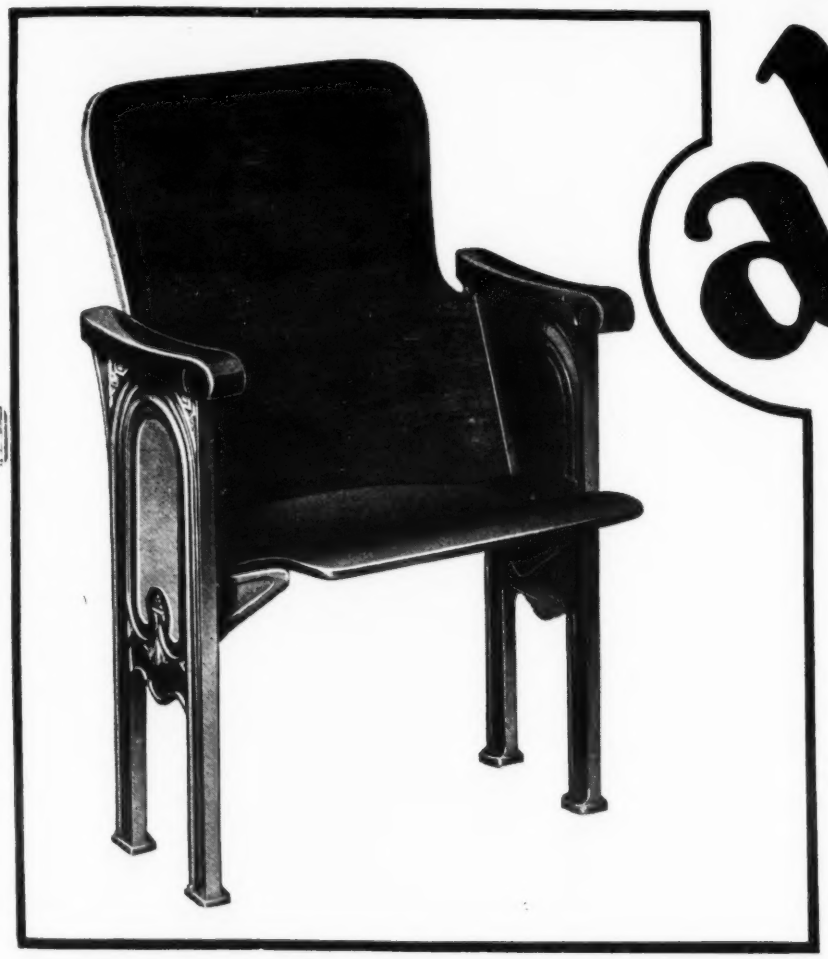

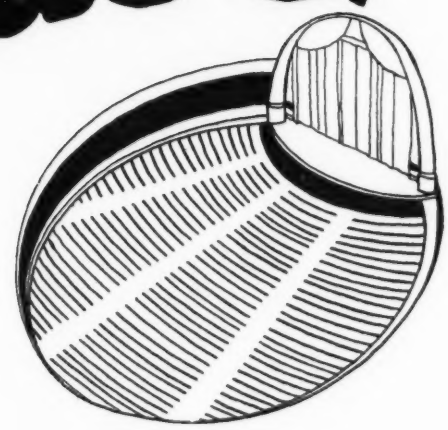

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The Future in School Finance

William C. Bruce,

A look into the future of school finance and a search for betterments and refinements must necessarily be predicted upon the needs and shortcomings which exist today. The inquiry at least must concern itself with the outstanding fact that the system of financing popular education which served a past day may be found inadequate now, and no longer adapted to a changing order of things.

Thus, without going into a historical review of the various factors which have led from past concepts in school finance to present methods, we may concern ourselves at the outset with just what is meant by the new order of things, and some of the problems growing out of them. And, here it becomes apparent, that solely out of the constant growth of the country's population and economic power, new conditions and unanticipated needs may arise which call for a fresh approach to the problem. Again, the scope of educational effort is subject to the changes in the social life, requiring further financial adjustments. The tendency here is not only in the direction of expansion in the program of education, but a more intensified and refined method of adjustment. In brief, the effort is toward more and better education. Life in all its aspects demands more at the hands of education, and the educational factors respond to the demand.

All this involves readjustments both as to the source, volume, and distribution of funds. Cautious equalization of state funds, and painstaking budgetmaking in the local use of funds, and a firmer control over all matters of school finance becomes the order of the day. Furthermore, there must be a clearer understanding of the sources of school support, namely taxation, and the exigencies and problems that attend such support.

Better School Financing

Even a casual approach to the problem reveals the need for better school financing and the elimination of leaks and wastage, caused in part by a faulty allocation of funds, and the careless expenditure of the same.

Much has been said and written as to the causes which have led to the startling increase in the nation's school costs. Briefly, three factors have come into play. The first of these must be found in the fact that the schools as a whole dispense more education than ever before. For example, the total days of schooling provided per pupil annually has increased vastly between 1914 and 1926. Children enter school at an earlier age and remain longer, as is evidenced by a 200-per-cent growth of kindergartens between 1910 and 1928, a nearly 400-per-cent growth of high schools, and a 300-per-cent growth of colleges and normal schools in the same period.

The second factor is found in the expansion in kind and quality of the school service. It covers a wider range than ever before attempted. Time will permit a mention only of the introduction of vocational training, junior high schools, health programs, more commodious schoolhousing, better compensation of professional service, and the like, in order to form some conception as to the causes of an enlarged school budget.

The third cause for the higher school costs must be found in the costs of living which has doubled, and the purchasing power of the dollar which is only 65 cents of the 1913 dollar. This shift in the economic situation occurred during the decade when the expansion in school activities received its greatest momentum.

In reducing the several causes down to a single statement, it may be said that intensified life and a modern social order not only makes greater demands at the hands of popular education, but with characteristic American enterprise, the school authorities have widened their offerings. This has entailed greater costs which a taxpaying public has met with a reasonable readiness.

The momentum thus attained cannot be slackened. School costs cannot be reduced without impairing the service. Salaries for professional service, which constitutes from 70 to 80 per cent in every school budget, cannot be cut to any material degree. The mobility and increase of school population and the rise of enrollment in high schools and colleges demand new buildings. Thus, if school costs cannot be reduced, it is equally certain that the tendency will not be in the direction of further increases. The momentum which education has attained will be relaxed. The spirit of expansion will prevail in education as in all other branches of economic and social life.

The Sources of School Revenue

If we are satisfied that the policy of expansion is to be maintained, coupled with the fact that many school systems are at present inadequately financed, then we are brought directly to the question of an increased school revenue. More strictly speaking, we are faced with the problem of taxation, which stripped of all theoretical palaver, reduces itself to the crucial question, Can the present sources of taxation reasonably bear a heavier burden?

In 40 states the main source of revenue as applied to local and state school support is derived from the general property tax. In some of those states, other forms of taxation are employed in a complementary or secondary way, but in most instances only in a minor degree. The property tax, with all its inequalities, applies throughout the country as the basic source of revenue for governmental purposes. (Here, of course, consideration of the system of taxation employed by the Federal Government is excluded.) Where the need of an increased school support becomes more or less acute, it is quite natural to turn to the established sources of revenue, and to see to what extent added burdens may be placed. This may be done by increasing the assessed valuation of property to approach appraisal values, or else by raising the tax rate several notches.

Those who believe that property is carrying all the burdens it can bear, will resist further tax increases. The citizens' taxpayers' leagues, which assent themselves in nearly all sections of the country, are practically of one mind that land holdings and the improvements thereon are carrying an oppressive load and should not be asked to carry more. They point out that the list of delinquent taxpayers throughout the several states, and the involuntary assignments of property to cities and counties through much delinquency, have grown to an alarming degree. If we are satisfied that the present sources of direct taxation cannot consistently and equitably bear a heavier burden, then we are brought directly to the question, Can new sources of tax revenue be discovered?

Before answering this question, we must bear in mind that the method of taxation, namely, to exact tribute upon property values, which is basic in this country, is an obsolete and worn-out instrument. It was discarded by the leading countries of Europe many years ago, as being uneconomic, unjust, and confiscatory. It disregards the earning power of both property and man, and ignores the fact that a tax based upon the ability to pay the same, is not only more productive of revenue, but vastly more equitable and just.

Thus, in casting about for new sources of tax revenue, there is only one avenue open, and that leads us to the system of income taxation. Some states, owing to the possession of natural resources, such as minerals, oil, and forests, may engage in a severance tax, or because of the character of their industries, may invoke a corporation or commercial tax; but on the whole, it is wiser to hold to the earning power of all interests — agricultural, industrial, commercial, and financial — and to levy an income tax, graduated according to the size of incomes.

Distribution of School Support

While we are concerning ourselves with the problem of an increased tax, we are reminded that a wise and consistent disbursement of school money is always before us. We are not so much concerned here with the outright extravagances as we are with the possibilities of economy in the true sense, that is, with a more efficient adjustment of budget items, and a more equitable distribution of school funds.

(Continued on Page 101)

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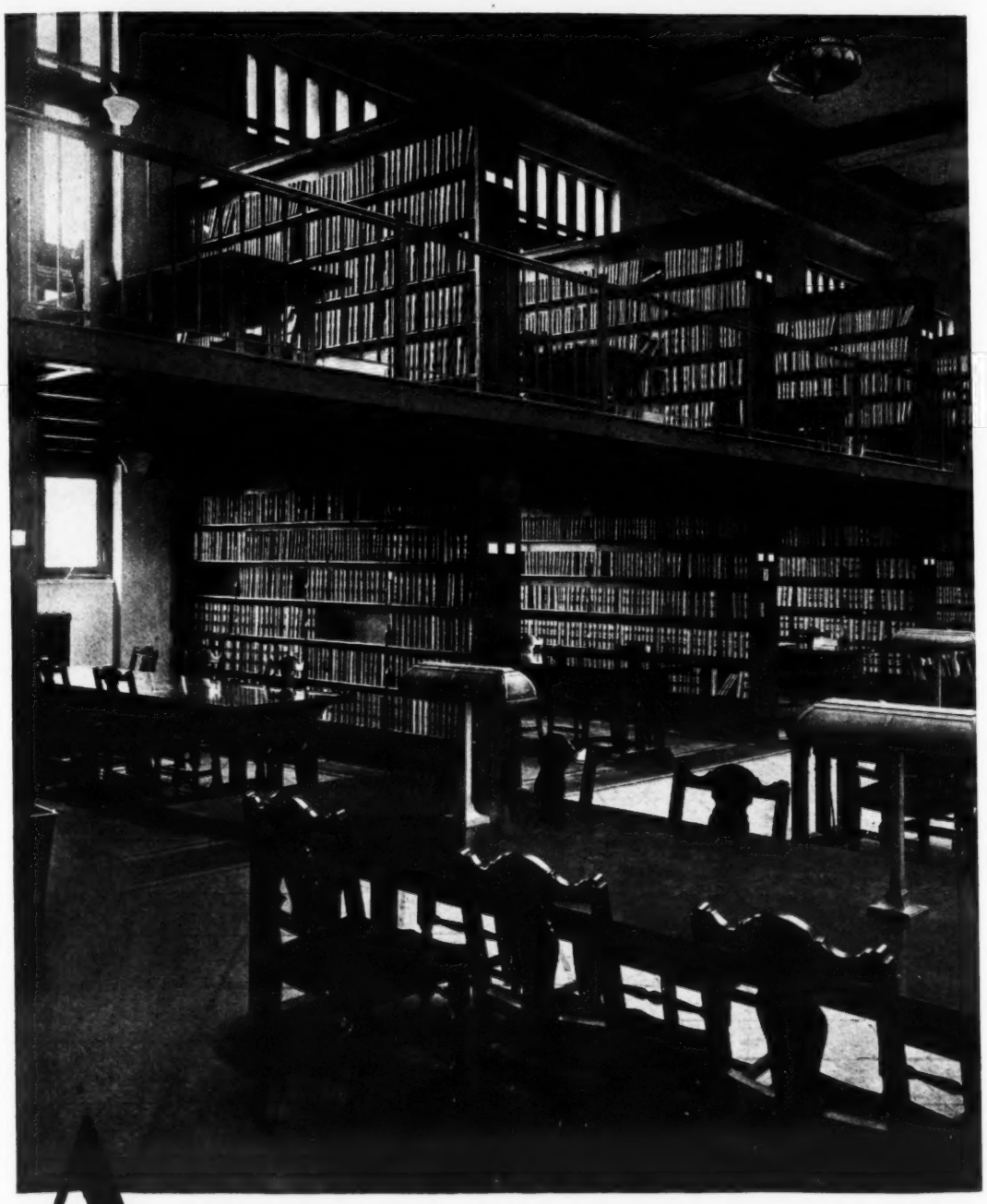

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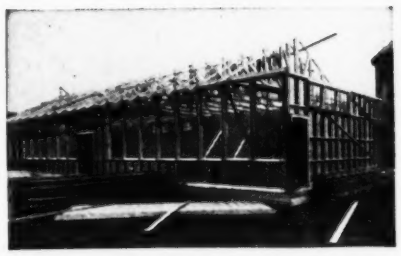

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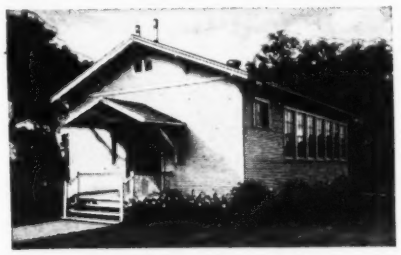

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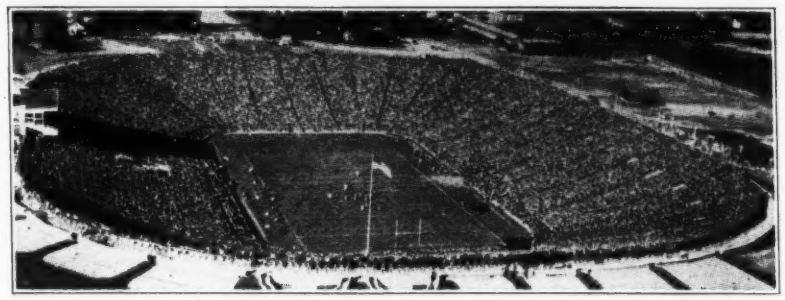

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(Continued from Page 98)

In any discussion of the subject of equalization of school support, we are confronted immediately with the inequalities in the distribution of state school funds. There are the poor districts and poor counties which cannot maintain school systems on a par with the adjoining rich districts and rich counties. This problem has perplexed the educators in finding adjustments, and has taxed the ingenuity of the legislator in finding the additional money required.

If the democratic idea of affording an equal educational opportunity for every child is to be maintained, the task must begin with the equalization of school service between district and district, and between town and country through the means of state support. The theory that the state as a whole is the proper unit for levying school taxes, as is the case in Delaware, must be further developed and applied. If 50 to 90 per cent of the school funds, instead of 10 to 15 per cent as at present, come from the state, equalization of school opportunities will be easier and the burdens will be placed where they can best be carried.

Financial Problems of Cities

While many of the states as such are wrestling with the equalization problem, the cities in many instances, are pressed for a more adequate school support. This pressure may be in response to a real need as much as it may be due to local ambition to excel in the matter of fine school buildings, in a broadened course of study, or in agencies deemed desirable rather than necessary.

Where an acute shortage in the school funds has manifested itself, practical expediency, too, has found the solution. Either the public has been asked for more money, and when this has been denied, the budget has been subjected to a revision which involved the weeding out of items which in no material degree impaired the efficiency of the service. The shortening of school terms because of a shortage of funds has been confined to a few states, and then only to a limited number of districts, in which unwise educational leadership has prevailed, or where the schools have been interfered with by a politically minded city administration.

And, here too, it should be said that where the signal of distress was hoisted intelligently, the required relief soon came. The American people will not forsake the schools. They are generous to the last degree, and where the bid for added financial support has been denied, the reasons for such denial were in the main logical and correct.

In this connection, it must not be forgotten that the taxpaying public is more discriminating than it has been in past years. When bond issues for school purposes are proposed, it has been found that the public must not only be fully informed as to the disposition of the funds demanded, but it must be assured that rigid economy in the expenditure of the same is being exercised.

In numerous recent school-bond elections, it has been noticed that the voter is far more sensitive to the ultimate costs of an issue than he was in the past. There are available reliable indices of interest rates for bonds, which even the smaller cities may use to time the sale of their issues and to bring wholesome competition for the grasping small banker. Ample facts are available concerning the retirement provisions of bond issues so that no school board need issue any but the most advantageous types of bonds.

The problem of successful finance of city school systems is bound up constantly with better financial planning not only for the short yearly period as represented by the annual budgets, but by planning for longer periods of five to ten years. The scientific school-building program is the best expression of long-range financial planning, but its possibilities have been barely appreciated. Carefully considered programs of educational development, expressed in terms of cost and probable sources of income, are quite as necessary as building programs. There is, further, a growing need for studying the results of the vastly increased monuments of debts which some unwise school-building programs have built up along with needed school buildings. It is most desirable that the lead of the Federal Government in cutting down the national debt be followed by city-school governments. Some of the best-financed cities are wisely using current funds for a portion of school-construction costs, and are working distinctly toward the reduction of their bonded indebtedness. The tendency, with certain limitations, is certain to grow.

In reaching the question of economy, as applied to the subject of school administration, it follows, too, that better planning for and closer control of current expenditures are in order. While it cannot be said that the American schools, on the whole, are managed upon a basis of extravagance, it is, nevertheless, true that the item of economy as already urged cannot consistently be overlooked.

The beginning of all control of waste in city schools lies in adequate budgeting and accounting procedure. As these important elements of business management continue to be improved, it will be possible for the superintendent and the school board to put their finger on waste in supplies, fuel, and building maintenance. It will be possible to compare those major elements of cost, like control, instruction, maintenance, debt service, and to avoid those variations between communities which now exist and which clearly indicate waste.

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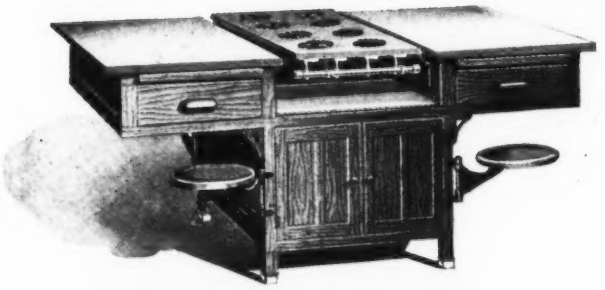

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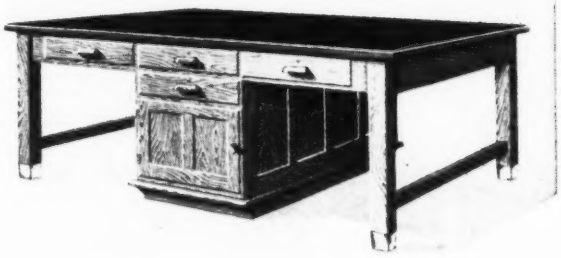

Student's Biology Table No. 870

New Attitudes on School Finance

It was intimated earlier in this discussion that a clearer understanding of the sources of school support must be fostered. This means that those who argue for more adequate school support must be prepared to suggest the ways and means by which such support may be made possible. When the lawmaker says that increased appropriations cannot be entertained, because there is no money and no prospect of finding it, the argument usually comes to an abrupt close.

The situation, however, upon a careful study may be far more promising. A more intimate knowledge of the tax ability of community or state, and of the untapped sources of revenue, may put quite another aspect upon the situation. In the light of the annual income of the nation of 85 billions, the sum of 2.3 billions (or 2.7 per cent) expended for education is not unreasonable. If an integral part, or the smaller unit, is unable to meet the added burden, then the larger unit, namely the state, may be fully able to meet the same.

At this point, it may be mentioned that there are those who point out the vast sums that are expended by individuals for luxuries, and seek thus to shame the people into yielding in the direction of a more liberal support for education. Any comparison of private and public expenditures is illogical, except insofar as it establishes the economic ability of the people to pay for essential public needs. It is unwise, in my judgment, to chastise the public for its extravagance and appetites, and at the same time, to solicit its support of the schools. The cause of education must stand on its own merits, and must be championed affirmatively, rather than by negation and invidious comparisons.

The approach to the problem of school finance logically begins at the point where the sources of school finance are being tapped. And that brings us within the range and realm of taxation. While those who concern themselves with the question of adequate school support cannot in the nature of things be expected to become expert in the field of taxation, they may well familiarize themselves with the fundamentals that control the science of taxation.

The business manager of a school system may reasonably be expected to understand the principles of taxation and public finance, as well as the economic resources of his state and community so that, when he argues for more liberal school support, he can supply data to show how and where that support is to come from.

Summary and Conclusions

In summing up the considerations which must attend the future of school finance, if the nation's educational program is to be fully realized, the following may be enumerated:

First, that those identified with the cause of education must give greater attention to the sources that make for school support, and to the scientific factors that enter into the rearing of an equitable and efficient system of taxation.

Second, that the equalization of school support, whereby the larger unit comes to the aid of the smaller, thereby enabling the poorer district to enjoy the same educational opportunities enjoyed by the more favored district, must continue until the required adjustments have been realized.

Third, that the long-term building program and the balanced budget idea, as regulating factors in school finance, are not only established, but that these beneficient aids must be employed more scientifically and accurately in the future than this has been done in the past.

Fourth, that if public favor is to be retained in the maintenance of a school system carried upon broad and progressive lines, the policy of an open door to school-administrative deliberation must prevail. Publicity as to board-of-education procedure must be encouraged, and the contemplation of projects, departures, and innovations, as well as the achievements of the school itself, must become an open book before the scrutiny of the taxpaying public.

PERSONAL NEWS OF SUPERINTENDENTS

♦ HENRY CARLETON WEBER, who for many years served as superintendent of the Nashville, Tenn., schools, died on June 18. He was an outstanding champion of the all-year school. Mr. Weber resigned from his position several months ago owing to a difference between himself and the city administration.

♦ MARTIN B. FRAVIS, superintendent of the Iron Mountain, Mich., high schools for thirteen years has been reappointed.

♦ C. C. UNDERWOOD has resigned his position as assistant superintendent of the Indianapolis schools.

♦ A city-wide friendship dinner was tendered to C. V. COURTER, the superintendent-elect of Dayton, Ohio. Some 300 citizens were in attendance. The idea of a city-wide friendship banquet is a new one in Dayton. Its purpose is to give citizens an opportunity to meet their city officials and to hear some report of the duties which they are facing and the problems with which they are dealing. With few exceptions city officialdom will be present.

♦ The school committee of Providence, R. I., has appointed ERICK A. ANDERSON as deputy superintendent of schools at a salary of $6,200.

♦ MR. NORMAN D. BAILEY, of North Kingston, R. I., has been elected superintendent of schools for the towns of Freetown, Berkley, and Dighton, Mass. Mr. Bailey succeeds E. L. Hill.

♦ MR. E. D. CLINE, formerly assistant superintendent of schools at South Bend, Ind., has taken up his duties as superintendent of schools at Dubuque, Iowa.

♦ MR. C. C. CALLAHAN has resigned as superintendent of schools at Green Springs, Ohio.

♦ MR. P. D. KOEPPE, of Oakwood, Ohio, has been elected superintendent of schools at Andover.

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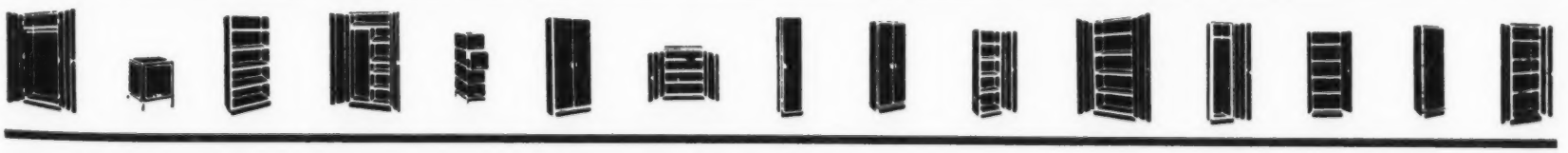

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THE NONRESIDENT-TEACHER PROBLEM

A new vote adopted by the Boston school committee forbids the employment of teachers unless they are residents of Boston. Nearly one third of the professional workers in the Boston schools live outside of that city. The rule, which has been the subject of considerable controversy, is defended by Chairman Joseph J. Hurley of the school committee in the following language:

"The 1930 *Public School Manual* shows that of 196 principals and directors, the highest salaried employees, 74 (37 per cent) and that of 4300 teachers, 1400 (32 per cent) live outside Boston. These nonresident principals, directors and teachers draw salaries totaling in excess of $4,000,000, the greater part of which is spent outside Boston. This $4,000,000 represents $2.00 on the tax rate, so that the Boston taxpayer who owns a modest home costing $5000 pays $10 every year to these nonresidents. Moreover, if the $4,000,000 which these nonresidents receive were spent in Boston stores, many vacant locations would be occupied with consequent benefit to owners of Boston property who pay taxes. Men with such salaries are presumed to have homes and families. Every one of them could afford a home costing from $5000 to $10,000. Taking an average estimate of $6,500 per home, we have $10,000,000 worth of property which should be located in Boston and paying taxes to Boston if these men lived here. $10,000,000 worth of construction at this time in the city of Boston would go far to relieve unemployment. Some have made the claim that these teachers have a right to live where they please so long as they give Boston good teaching service. But why should teachers have any more right to choose a place of residence outside Boston than other employees on the municipal payroll? These nonresident teachers live where they do as a matter of purely personal convenience. It would seem that a spirit of loyalty should impel men paid high salaries by the city of Boston to become part of its citizenship, to identify themselves with its interests, to become part of its civic life and to send their own children to the schools of which they are important factors.

Other Side of Question

"This argument that the restriction will prevent us from getting the best teachers for the children wholly excludes consideration of prospective teachers, the sisters and brothers of these children, and of the parents of these same children who pay taxes that the schools may be maintained. Furthermore, this argument utterly ignores the fact that the committee is faced with a condition and not a theory. With the general unemployment situation acute, the committee is mindful of the fact that we have approximately 1000 eligible candidates, most of them Boston residents, who can secure only occasional substitute work. These candidates have all qualified in academic and professional requirements for teaching the school children of Boston.

Boston for Boston

"We are appointing approximately 100 new teachers every year. I fully believe that Boston, with a population of 800,000, with its splendid educational institutions, can supply 100 first-class teachers every year.

"Let us, however, meet the objection on purely theoretical grounds. Does our restriction of nonresidents prevent us from getting the best teachers? It need not unless nonresidents think so little of the place in which they desire to work that they refuse to become our neighbors. We have not said to candidates, 'the fact that you have lived outside of Boston forever bars you from our schools.' We have merely said 'move into Boston and take your place in competition with Boston girls. You say that you are competent to teach in our schools. You earnestly desire to teach in our schools. Very well, become a Boston citizen, as well as a Boston teacher.'

"Abundant evidence is at hand that the surrounding cities and towns enforce a residence restriction. Most of them have not the courage to put it in their regulations but, nevertheless, carry it out as a definite policy. And in consequence the Boston girl, driven to the outside city or town by the crowded conditions of our list, is told politely but firmly 'Go back to Boston.' She has come back—ready, able, and willing not only to work here but also to live here. I intend to afford her the opportunity of doing both."

RULES AND REGULATIONS

♦ The board of education of Detroit, Mich., has adopted the following new rule: "No person in the classified service or seeking admission thereto shall be appointed, demoted, suspended or dismissed or be in any way favored or discriminated against because of his political or religious opinions or affiliations. No question in any test or contained on any form used in connection with the carrying out of the provisions of this by-law shall relate to the political or religious opinions or affiliations of any applicant or eligible on any employment list or reëmployment list established and maintained by the board of education."

♦ The board of education of Ottumwa, Iowa, recently refused to sign a contract tendered by a local labor union requiring the exclusive employment of union operators in operating picture machines at the high-school auditorium. The board reached the conclusion that organizations renting the auditorium should not be bound by such a contract and also that the presentations in the auditorium outside of school activities, were noncompetitive with local theatres but matters of community interest and backing.

♦ The board of education of New Bedford, Mass., has ruled against high-school fraternities. The high-school faculty held that these societies are undemocratic in their nature, demoralizing in their tendencies, and subversive of good school-citizenship; that they tend to divert their members from scholarly pursuits, and to put loyalty to a secret society above loyalty to the schools; that they divide the school into rival cliques, destroying unity and harmony of action, and rendering it more difficult to sustain the loyal, democratic relations which should exist among pupils in American high schools.

♦ Under a new rule adopted by the Elyria, Ohio, board of education, the several principals will be relieved from giving classroom instruction. "The idea behind the rule is that principals give their

(Concluded on Page 106)

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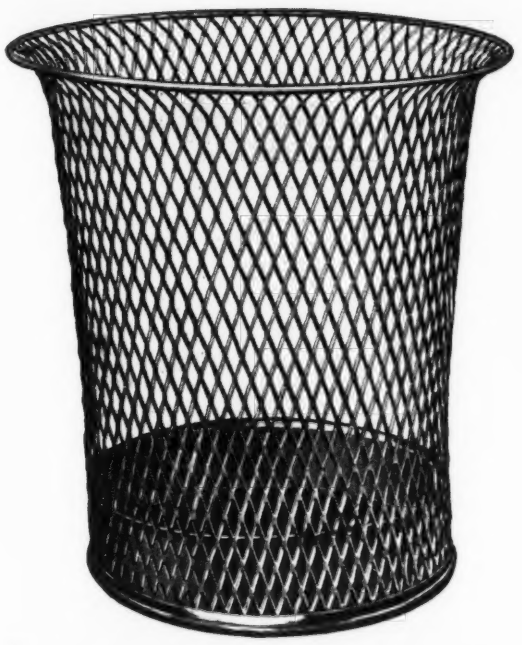

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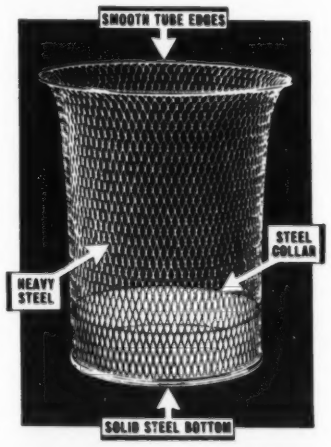

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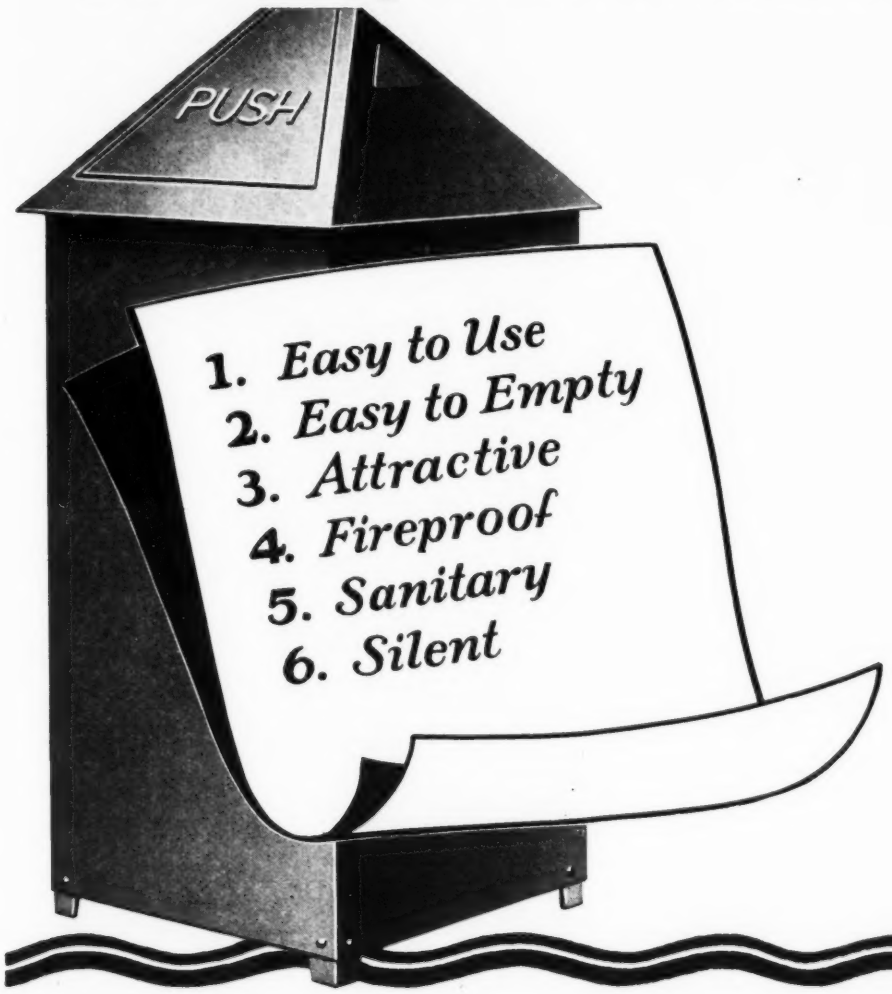

Install Solars in your school and watch for results. Solar Self-Closing Receptacles reduce cleaning costs, eliminate fire hazard, promote sanitation, reduce plumbing expense, harmonize with their surroundings, and last a lifetime. You will never know how the student can help in your campaign against scattered rubbish until you Solarize. You will never know what willing little hands can do to lessen your janitor's tasks until you adopt this modern method which is so rapidly replacing old-fashioned, open waste receptacles.

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(Concluded from Page 104)

full time to administrative labors," said Supt. R. C. Maston. "Incidentally, the plan when carried out will be less expensive than the system at present. If it were in effect over the whole city school system there would be a saving of approximately $10,000 in administrative expense."

♦ The board of education of Grand Rapids, Mich., has decreed that the minutes of the meeting of that body shall be printed in the daily newspapers.

♦ The New York board of education has adopted a rule prohibiting entirely canvassing, soliciting of funds, and selling of insurance or materials of any kind on the school premises.

♦ Under new rules adopted by the state board of education of Indiana, high-school students since July 1, 1930, may not earn high-school credit by the state examination. Local school authorities will assume the responsibility by prescribing the conditions under which "make-up" will be credited. There is no objection to the high-school students taking the examination, if the local authorities grade the papers and assume the responsibility for granting credit for make-up work.

♦ The school board at Aberdeen, Wash., has voted to name a new junior high school the George B. Miller Junior High School, in memory of a former school superintendent.

♦ The voters of Berkeley, Calif., will shortly be asked to approve a school-bond issue of $2,690,000 for elementary and high schools.

♦ Cleveland Heights, Ohio. A large addition will be erected for the high school, which will increase its capacity by one-third. With the completion of this building, the school will be able to accommodate 2,300 students instead of 1,500 as at present.

♦ Clinton, Iowa. By a strict system of economy in operating expenses, the school board has adopted a lower school budget, amounting to a total of $343,000. The budget represents a reduction of $26,000 from that of last year which amounted to $369,000. The board has estimated that it will spend approximately $20,000 more in 1931 than it asks be raised by taxation.

♦ Iowa City, Iowa. The school board has adopted a budget of $269,425, which is $1,000 less than that of last year. The amount is $35,000 in excess of the actual expenditures for last year.

♦ Moline, Ill. The school board has adopted a budget of $675,000 for the next school year. The largest item is $420,000 for teachers' salaries.

♦ Eau Claire, Wis. The school board has adopted a new blanket form of insurance policy for 90 per cent of the school property, estimated at $1,262,560. Under the new plan, one third of the insurance will be written for one year, one third for two years, and one third for three years. This brings one third of the insurance premium due each year, instead of premiums carried every three years. The amount of the insurance expiring this year is estimated at more than $500,000. All policies not expiring on July 15 were cancelled.

♦ The board of education of Town of Highlands, N. Y., Free School District No. 2, has let contracts for a new grade-and-high-school at a cost of $250,000. The money was voted in 1928 but a site controversy delayed the matter. A new school board clarified the situation and is proceeding with the project.

♦ Algona, Iowa. The voters have approved a bond issue of $185,000 for a junior-senior high school and college building on the site of the old high school.

♦ Chicago, Ill. Construction work has begun on the Lane Technical High School, to be completed at a cost of $6,500,000. The building will accommodate 6,000 students and will contain an assembly hall seating 2,500 persons.

♦ New York, N. Y. The board of education has failed in an attempt to persuade the members of the board of estimate that the proposed Brooklyn Technical High School is worth an appropriation of one million dollars. The board called for bids on July 8, before definite action was taken by the estimate board, so that it is in the position of having received bids without any assurance that the money will be available in time to accept any of them. The attack on the proposal for the school was made by Mayor Walker and President McKee of the board of aldermen.

♦ Norwood, Ohio. The school board has adopted an extensive school-improvement program, involving repairs to the various school buildings.

♦ New Buffalo, Mich. The voters have approved a bond issue of $100,000 for a new school. The bond issue is a result of the consolidation of five rural schools which was voted at the spring election.

♦ The board of education of Green Bay, Wis., insists that wherever expedient, local labor must be employed in the construction of school buildings.

THE LYNN SCHOOL COMMITTEE ACTS

The authority of the superintendent to nominate his assistants, and to be held responsible for their efficiency, became the subject of a recent editorial in the SCHOOL BOARD JOURNAL. It incidentally mentioned the fact, that when Supt. Harvey S. Gruver, of Lynn, Mass., presented the appointment of several professional workers to his school committee for approval he was met with opposition. Some of the members of the school committee believed in transferring the power of appointment from the superintendent to the committee, and a deadlock ensued.

At a subsequent meeting, however, the difference was happily adjusted. The teachers' council of Lynn in a resolution, upheld a progressive administrative policy, and the school committee, in accepting the viewpoint expressed therein, ratified the appointments of the superintendent. At the meeting of the board on June 10, the members unanimously reëlected all the supervisors and directors affected by the new progressive policy in the schools.

♦ Girard, Ohio. The school board has adopted a budget of $191,045 for the school year 1930. The new budget represents an increase of 55 cents on each $1,000 of valuation or $10.20 per thousand. The board has created the positions of truant officer and school nurse.

♦ Ventura, Calif. The budget for the elementary schools has been fixed at $205,000, which is slightly above the total for last year. The budget includes $60,000 for a new school building.

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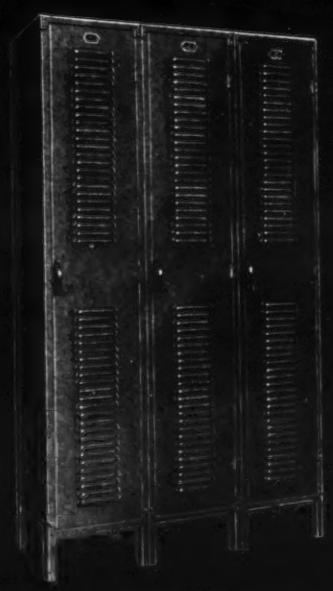

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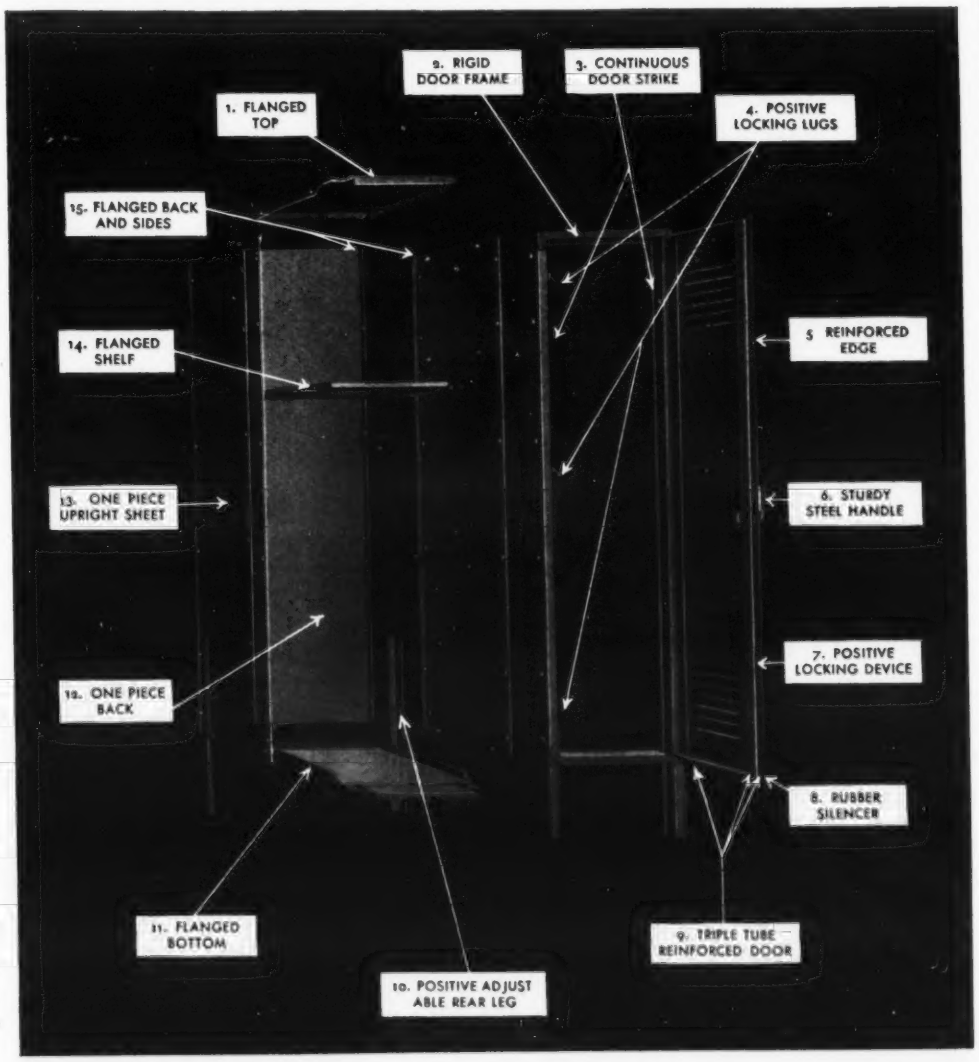
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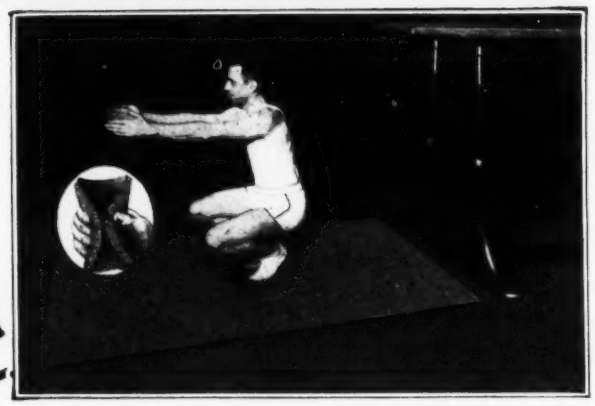

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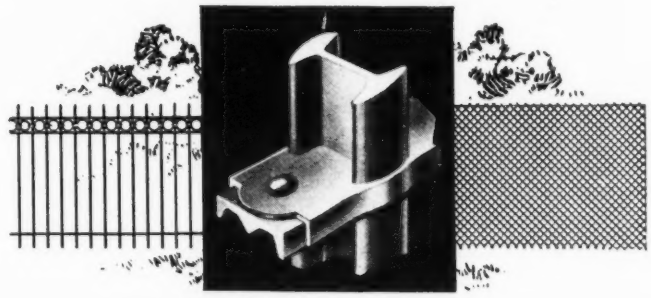

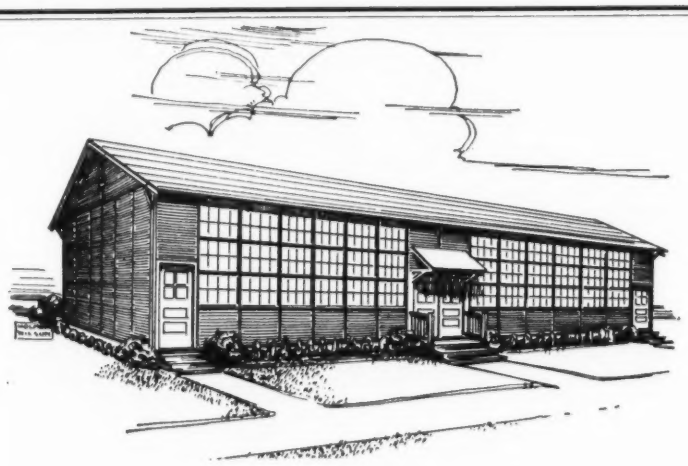

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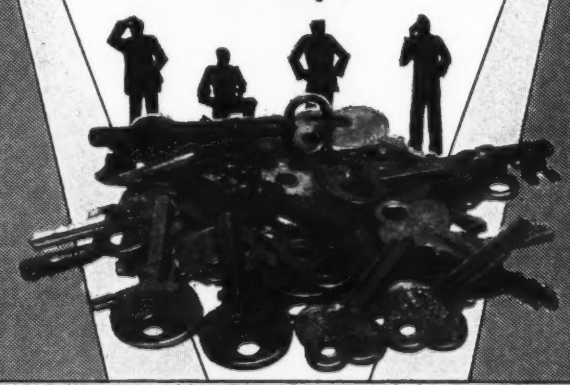

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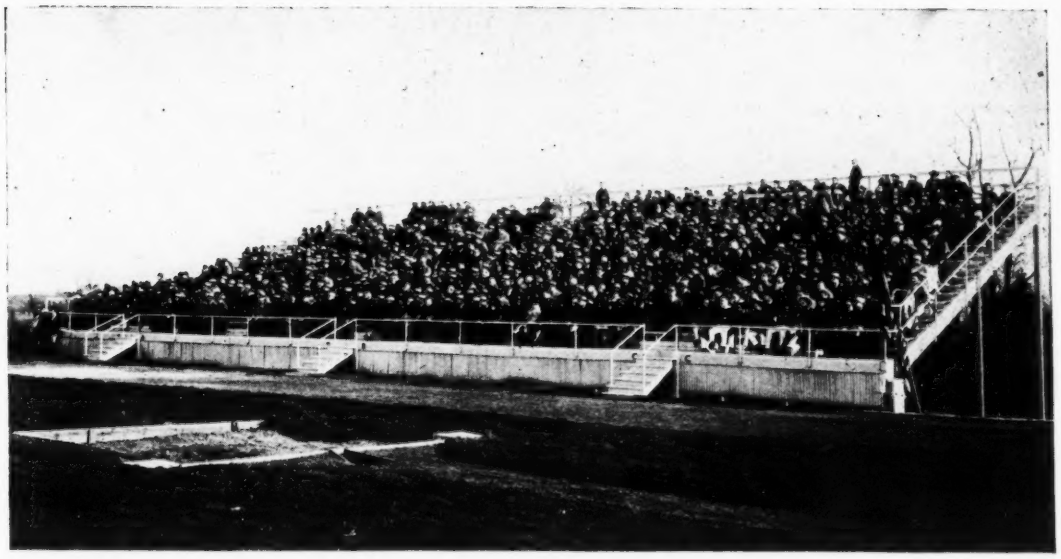

A Pittsburgh-Des Moines Grandstand at Ursinus College, Collegeville, Pa. Capacity 1440 persons.

Record crowds mean a healthy increase in financial receipts. And record crowds will result from comfortably seated, satisfied spectators at the big games and other outdoor events. Pittsburgh-Des Moines Steel Grandstands have comfortable wooden seats raised on supports, with ample leg and foot room. They offer maximum safe seating capacity at minimum cost.

The clear space beneath the stand may be utilized for dressing rooms, offices and storage — roofed by the water-tight construction of the seats above. The PDM Grandstand is built in standard sections—which can be added to or double-decked as required. The upkeep is low—an occasional coat of paint. The high investment value is always there. Ask about our deferred payment plan.

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WASHINGTON CORRESPONDENCE

A. C. Monahan, Formerly U. S. Bureau of Education
National Study of Teacher Training

The national study of teacher training in the United States, to be undertaken by the U. S. Office of Education as provided by a recent act of Congress, has been begun. Dr. Edward S. Evenden, of Columbia University, has been appointed associate director of the study, which will be known as the "teacher-training survey." The Commissioner of Education is the director, as he is of surveys carried on by the bureau, and Dr. Ben Frazier, of the regular staff of the Office, is the administrative assistant. An appropriation of $50,000 is available for the first year's work. A total of $200,000 has been authorized for the entire work which covers three years.

The advisory committee has been appointed by the Secretary of the Interior to be available for consultation on the survey and its methods and activities. The members are:

John A. H. Keith, Penn. State Commissioner of Education; W. P. Morgan, president State Teachers College, Malcomb, Ill.; D. B. Waldo, president Western State Teachers College, Kalamazoo, Mich.; G. W. Frazier, president State Teachers College, Greely, Colo.; W. W. Kemp, dean school of education, University of Calif.; M. E. Haggerty, dean school of education, University of Minn.; W. C. Bagley, Teachers College, Columbia University; W. S. Gray, dean school of education, University of Chicago; H. W. Holmes, dean graduate school of education, Harvard University; Shelton Phelps, George Peabody College for Teachers; W. W. Charters, dean school of education, Ohio State University.

Faculties of Washington's Teachers' Colleges

The two teacher-training institutions of the District of Columbia are now four-year teachers' college. The classes entering this fall will be the first to start in on the four-year course. The change from a three-year normal school, to a four-year college, with standards that give them recognition with other four-year teacher colleges, has made it necessary to add to the teaching staffs of both institutions several instructors of scholastic standing beyond those required in the past for this type of work.

With the change of these two teacher-training institutions to four-year colleges, the board of education has announced that beginning July 1, 1933, the eligibility requirement for teaching in the elementary schools of the District will be a bachelor's degree; for teaching in junior and senior high schools, a Master's degree including professional training.

Federal Relations to Education

A "memorandum of progress" has been issued by the National Advisory Committee on Education, appointed recently to study the general question of the Federal Government's place and activities in education. The committee which is composed of 52 educators from all sections of the country and representing various educational activities and groups was selected by the Secretary of the Interior, and appointed by the President.

The particular purpose of this memorandum is to acquaint the public with the direction the study is taking and what seems to be the line of thought of the committee. This is done to invite suggestions from anyone interested, whether in educational work or not.

In the memorandum are printed certain "principles" tentatively agreed to by the committee which have been published. More interest will be evidenced now in the seven "proposals for action." It is relative to these particularly that the committee now invite suggestions. These proposals in brief are as follows:

1. Increase appropriations to various Federal agencies now engaged in educational research to increase the effectiveness of their work.

2. Create a Federal headquarters for educational research, to serve as a coöperating center for all Federal agencies with respect to their educational work, and as a source of comprehensive, correlated, and accurate data on education for all concerned.

3. Provide one unallotted grant to the states of $2.50 per child under 21 year of age, with the sole restriction that these Federal funds be used for support of educational operations, making each state responsible for budgeting the grant within the state school budget in such manner as, in the judgment of the state itself, will best develop all the talents of all the people.

4. Repeal all laws that give annual Federal grants in any form to the states for special phases of education of interest to particular groups of the people, or that authorize Federal officers to supervise state educational or research activities, approve state plans, or withhold funds in order to compel state compliance with Federal requirements.

5. Provide that each state for the five years must allot to each specific purpose for which it now receives Federal funds, as much of the new funds as is now received from the Government for that purpose.

6. Require that each state submit each year to the Government a financial audit and a published detailed report of its use of the Federal money, and that these reports from the states be printed and distributed by the Federal Government in one volume.

7. Readjust the distribution to the states on the basis of new census figures each ten years as the Federal census is taken.

It would seem that the committee is trying to find an acceptable way of bringing Federal financial aid to the educational activities of the states, without in any way bringing about Federal control of these activities. The Federal aid would be in a measure an equalization fund, which some think desirable because of the great difference in taxable wealth in the various states. The control proposed would be a moral control through publicity of the use the states would make of the Federal aid. The committee would, at the same time, correlate the many Federal activities in the interests of education, now lacking in effectiveness.

The Fresno High-School Registration System

O. I. Schmaelzle, San Francisco, Calif.

Registration in any high school is always a real problem, so that teachers, students, and the administration in general give a sigh of relief when registration days are over. The Fresno High School at Fresno, California, has experimented with several types of registration procedure, and has adopted one which has proved satisfactory for three different registrations. While the plan possesses several advantages, there is considerable room for improvement, and changes and improvements in the plan are being utilized to the fullest extent.

The Procedure

Beginning three or four weeks before the close of the regular semester, the entire homeroom or advisory period is devoted to a study and discussion of requirements, electives, and the subject matter of the various courses. The *counselor's cards* (Fig. 1) are distributed to the instructors in the advisory rooms. The directors and chairmen of all the departments may be called in to the advisory rooms to explain or discuss a subject in their departments. Students are encouraged to discuss the matter with their parents and to bring parental queries as well as other problems before the homeroom adviser.

About a week after the above study, the students make out and take home their *subject registration slips* (Fig. 2) for the parents' approval. This slip contains a statement of the work required for graduation.

Two or three days are allowed for the return of the registration slips with the parental approval. Then the time is given over (in the homeroom) to making out program cards. One tentative card is made for each pupil, showing his full day's schedule. In addition, the student makes out a *class roll* (Fig. 3) *card* for each subject (not for study hall or physical education).

Setting up the Program Board

The last week of the semester, the teacher files these roll cards. In a special room, a program board is set up. This is a board which contains a schedule of courses diagrammed on a large scale. The schedule of courses by teacher and by periods has been made out by the principal three weeks before the close of the semester, after each director of his department has turned in his particular departmental schedule, and this has been rechecked to prevent conflicts. The program board (about 6 by 4 ft.) has a nail or hook for each subject, per teacher and per period. Teachers use the board for assignments (as Monday, senior advisories, Tuesday, junior advisories) and "hook on" the class roll card by subject, teacher, and period. When the hook contains the number to "temporarily fill the class," the roll cards of that particular class are taken down and the hook is removed, or a "closed card" of a different color is hung up, until other classes of that subject are balanced; then it is reopened until it is positively closed at the maximum number. This procedure prevents overflow classes; if the program of a student must be changed, only the shifting of class roll cards is necessary. Classroom teachers can assort the roll cards to suit themselves, arrange them alphabetically or otherwise, very quickly in their own rooms. By removing the hook (or using the closed sign), the board shows which classes are still open, and the number enrolled in each class. Then the teacher can schedule the physical-education periods and the study-hall days.

After the teacher has "hooked" her class roll cards per student's program, she can easily make out a card for herself and the office. The fact that the plan saves spoiled cards and much of the teacher's time and effort are factors worthy of consideration. No teacher has more than 35 students to a schedule, and these can be arranged leisurely and carefully. Thus, a fairly even distribution is obtained.

Special Advantages of the Plan

The advantages of the plan are:

1. The teacher's load, rooms, and pupils' daily program are ready before the opening of the second semester and the opening of school in the fall. Any of these may be changed during the summer, if necessary. The office clerk, if necessary, can handle this. The class roll card for each student in each class acts as a means of adjustment in conflicts.

2. Scheduling may be done quietly, leisurely, and scientifically.

3. Teachers may be selected to fit the subject, instead of selecting subjects to fit the teachers.

4. The daily program is presented to the teachers in a graphic manner. They have an opportunity to report early their questions, suggestions, and requests for changes.

5. It eliminates the necessity of early return in the fall before the school term opens.

6. When the programs are changed during the first few weeks of school, the plan shows the enrollment of the classes at a glance.

7. In making out a class roll card for study halls, the study-hall teacher knows her students and there is very little danger of a student not being signed up for study hall, or of being able to "cut" classes. A complete check of the students after every class period is possible under the plan. Even those students "going home" at the sixth period may be indicated.

OUTSIDE SPEAKERS NOT ALLOWED

J. M. Clifford, Romeo, Michigan

The idea of group meetings discussed in this paper is not new nor original; hence, it can be called a good plan, without the danger of anyone preferring charges of egotism. Last November, the superintendent of schools at Imlay City, Michigan, invited the school teachers and administrators from ten or a dozen near-by towns to a get-together meeting at Imlay City. The group enjoyed the gathing to such an extent that Lapeer held a similar meeting in March, and Oxford contemplates one for October.

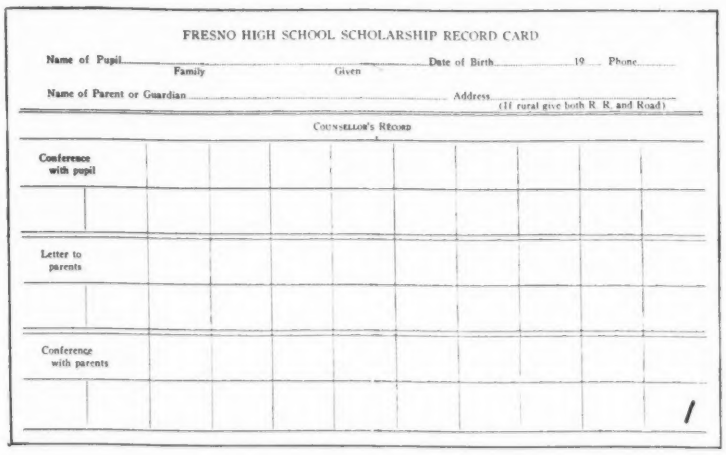
The schools represented are small schools, ranging in size from a 35-teacher system, down to a 5-teacher system. The schools are all within a forty-mile radius and nearly enough alike so that they face similar problems.

The meetings are called for 6:30 and follow a plan something like the following:

6:30 Dinner in high-school cafeteria or gymnasium.
7:40 Three general meetings. One for senior high-school teachers; one for those interested in junior-high schools; and another for elementary teachers.
8:30 Small group meetings, such as superintendents and principals, history teachers, English teachers, mathematic teachers, shopmen, coaches, and the like. (These groups are small enough to permit free discussion.)
9:30 General assembly.
9:45 Dancing.

There is no formal organization whatsoever and no officers are elected. There is no name, and a chairman acts for one evening only. There are no dues. Supper is served at cost. The group has set up just one rule; that is that there shall

(Concluded on Page 112)


FRESNO HIGH SCHOOL SCHOLARSHIP RECORD CARD

Name of Pupil ____ Family ____ Given ____ Date of Birth ____ 19__ Phone ____

Name of Parent or Guardian ____ Address ____ (If rural give both R. R. and Road)

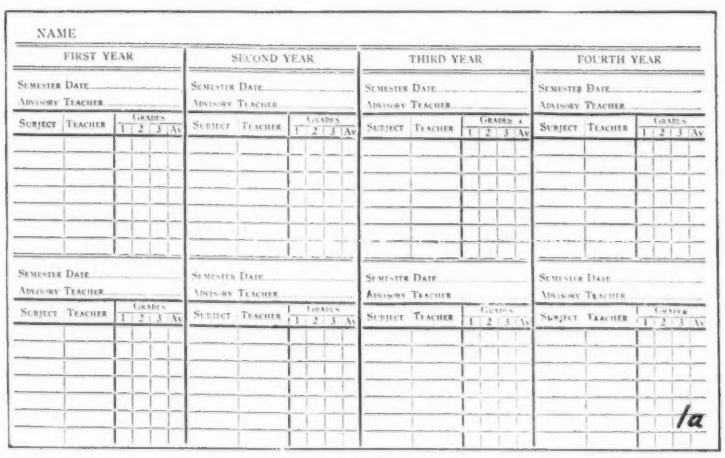
COUNSELLOR'S RECORD

Conference with pupil

Letter to parents

Conference with parents

1

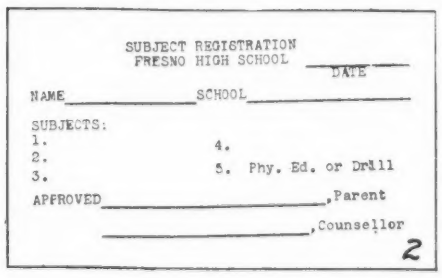

NAME

FIRST YEAR | SECOND YEAR | THIRD YEAR | FOURTH YEAR

Semester Date ____ Advisory Teacher ____

Subject | Teacher | Grades 1 2 3 Av

1a


SUBJECT REGISTRATION
FRESNO HIGH SCHOOL ____ DATE

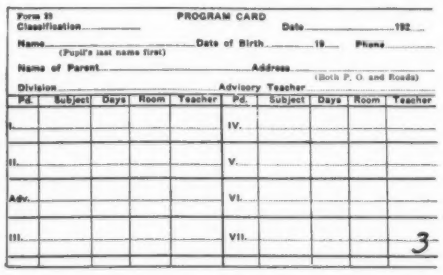
NAME ____ SCHOOL ____

SUBJECTS:
1.
2.
3.
4.
5. Phy. Ed. or Drill

APPROVED ____, Parent

____, Counsellor

2


Form 33 PROGRAM CARD

Classification ____ Date ____ 192__

Name ____ (Pupil's last name first) Date of Birth ____ 19__ Phone ____

Name of Parent ____ Address ____ (Both P. O. and Roads)

Division ____ Advisory Teacher ____

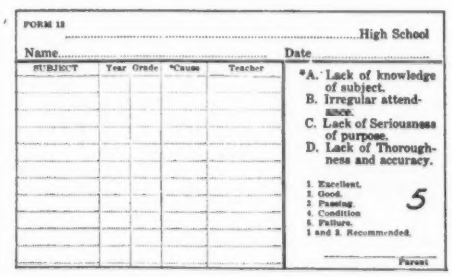
Pd. | Subject | Days | Room | Teacher | Pd. | Subject | Days | Room | Teacher

I. IV.
II. V.
Adv. VI.
III. VII.

3

4

Teacher
Pd.
Sr. Name
Subj.
Adv. Teacher


FORM 12 ____ High School

Name ____ Date ____

SUBJECT | Year Grade | *Cause | Teacher

*A. Lack of knowledge of subject.
B. Irregular attendance.
C. Lack of Seriousness of purpose.
D. Lack of Thoroughness and accuracy.

1. Excellent.
2. Good.
3. Passing.
4. Condition
5. Failure.
1 and 3. Recommended.

5

____ Parent

FORMS USED FOR THE FRESNO HIGH-SCHOOL STUDENTS' REGISTRATION SYSTEM

1. Scholarship Record Card. 1a. Reverse of Scholarship Record Card. 2. Subject Registration. 3. Program Card. 4. Schedule Card. 5. Report Card.

No need for hot heads or cold feet in the classroom

IN THE schoolroom, especially during the winter months, when the pupil's feet are more or less damp from rain and snow, the temperature variation between the breathing line and the floor line should be no more than 2 degrees. In the average incorrectly-ventilated schoolroom, the temperature variation is often 10 degrees, therefore with a normal temperature of 70 degrees at the breathing line, the floor will be 60 degrees. Under these conditions, the cold is exaggerated because it is a well known fact that the moisture, evaporating from the wet shoes, draws heat from both the feet and the shoes, making the feet uncomfortably cold. This places the pupil at a disadvantage, his studies suffer, so may his health.

Correct ventilation is easily obtained. The use of the PeerVent System, when properly installed and with correctly located air inlets, reduces this temperature variation to about 2 degrees. Each PeerVent is entirely independent, as the cost of operation depends upon the actual service rendered in the one room where the unit is located. The PeerVents in unoccupied rooms need not be operated. The fresh air discharged from the PeerVent is so completely diffused that it eliminates any blasts of over-warm air. Pupils can stand or sit close to the PeerVent without discomfort. Besides being economical to run, PeerVents are also absolutely quiet in operation.

Investigate the new PeerVent and get an estimate for installing them in your schoolrooms.

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(Concluded from Page 110)

be no outside speaker. So far there have been no speakers at all. Open discussion of problems seems more valuable than a process of being fed inspirational ideas.

To insure a discussion of worth-while topics, the superintendent of the entertaining school prepares a list of topics for discussion by writing to the schools concerned.

All seem pleased with the plan. Some of the benefits of such round-table meetings are:

1. The meetings give the teachers an excellent chance to become acquainted with one another.
2. In meeting together the teachers get new ideas to take back to their work.
3. Teachers and principals have an opportunity to talk about the solution of their problems and the improvement of instruction.
4. Teachers get a feeling of unity, which tends to develop a professional spirit.
5. The meetings are refreshingly free from the formality of institutes and conventions.
6. Discussion groups are small enough to permit a free exchange of ideas.

THE LEGALITY OF SCHOOL PUBLICITY BY BOARDS OF EDUCATION

(Concluded from Page 34)

tions. — Amer. Dig. 43: 2275. Union Sch. Twp. vs. First Nat. Bk., 102 Ind. 464; 2 N. E. 194."

"A person contracting with a board of education is presumed to know the limitations on its powers, and can acquire no rights by a contract which such board is not clearly authorized to make. — Amer. Dig. 43: 2250. State vs. Freed, 10 Ohio Cir. Ct. R. 294."

"Where money raised for school purposes is wrongfully appropriated, or applied to other purposes than those authorized, the board or officer making such misappropriation or misapplication is guilty of a breach of duty and liable therefor in damages, although the misappropriation or misapplication is made through a mistake. — Cyc. 35: 1048. Knox Co. vs. Hundt, 110 Mo. 67; 19 S. W. 628. Shelley School Bd. vs. Shelley, 22 Wkly. Rep. 154."

4. The school-publicity powers of public boards of education are legal when they reasonably promote the ends of education.

"The statutes of the states relating to education which gives the control and management of the public schools to the boards of education of the several districts, authorize such boards to establish rules and regulations for the government of the schools, and, so far as rules so established are reasonable and fairly calculated to insure good government and promote the ends of education, will be sustained by the courts. — Board of Education vs. State, ex rel., 80 O. S. 133; 14 Longsdorf's Notes 1050; Page's Ohio Dig. 7: 15430."

From the foregoing it will be seen that school boards will generally be sustained by the courts in the reasonable use of publicity.

THE COUNTY UNIT IN SCHOOL ADMINISTRATION

(Concluded from Page 39)

has been declared unconstitutional by the state supreme court. It provides that the county unit should include all districts except those having a population of 1,000 or more, although these districts could vote to enter. Under the Arkansas plan, the county board would have consisted of five members elected at large, who would appoint the county superintendent. There was no requirement, however, that he be the executive officer. The board was given full powers over school affairs of the county, being restricted chiefly in setting the tax rate, which required a vote of the people of the county. According to the statement of H. T. Steele, assistant state superintendent, Arkansas "does not have any county-unit law at present. Pulaski county is operating under a county-unit law, with the exception of Little Rock and North Little Rock."

The Ohio Plan

In addition to these county-unit systems, mention should be made also of the semicounty unit organization in Ohio. In this state the county school district includes all the territory except cities and certain village school districts. There is a county board of five members and a county superintendent is appointed by the board to be its executive officer. The powers of the county board are greatly restricted, however, since the local district boards have power over such important matters as controlling transportation, locating schools, holding title to all school property, constructing buildings, and providing equipment and supplies. The local district boards likewise set their own tax rate and determine their own bond issues. On the recommendation of the county superintendent they also appoint their own teachers. The powers of the county board relate largely to the control of attendance, the development of courses of study, and general supervision. The county superintendent, however, has considerable power and importance in the Ohio plan, which probably represents the county unit in transition.

Suggested Essentials

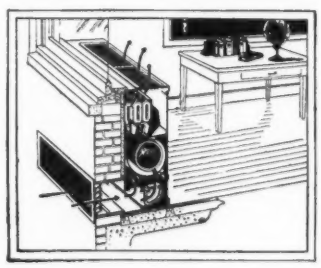
It seems evident from the foregoing analysis that to have an effective county unit of school administration, certain essential features must be present.

1. The county unit should be inclusive of the entire county, or at least of all but very large cities or districts.

(Concluded on Page 114)

Vacation Days!

Will classroom air undo vacation's benefit. . . when they come back to school?



THREE months of bracing outdoor air will bring them back to school in glowing health. But just a week or so in stuffy, dusty classrooms . . . and the glow will begin to fade!

Will they come back to such classrooms . . . or to classrooms where it's summer all year 'round . . . as it is where the air is governed by Sturtevant Unit Heater-Ventilators? These units bring in outdoor air . . . filter it clean . . . temper it to summer warmth . . . then drift it gently into the room, without a puff of draft. Vacation's benefits don't fade in pure, invigorating air! Students keep healthy and alert.

Now, while they're out in the open, building up their health, build health into their classrooms. See how other schools . . . all over the country . . . have done it. Catalog 361 will show you . . . it would be a pleasure to send you a copy.

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Use it to clean painted surfaces! This is one of the remarkable money-saving cleaning jobs by which Oakite is helping to keep down maintenance costs in schools all over the country. Paintwork cleaned the Oakite way shows up so brightly that in many cases repainting can be postponed for another season.

Whatever the job . . . floors, windows, walls, woodwork, desks, tiling, porcelain . . . you can do it with Oakite in less time and with less effort. Send for the near-by Oakite Service Man. Let him show you how Oakite cleaning will save money all through your school. No obligation.

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(Concluded from Page 112)

2. It should have a small governing board which should select the superintendent and make him its executive officer.

3. The board, through its executive officer, should determine all educational policies, as respects school plant, supervisory and teaching staff and other personnel instructional service, and finance, subject to limitations set by state law or regulations of the state board of education.

4. The county-unit administration should be so designed that it will be responsive to public sentiment, and will guide public thought, through adequate publicity and leadership.

A BUDGET MINUS GUESSWORK

(Concluded from Page 57)

my report under date of January 7, 1930, headed, "Recommendations with Respect to Economies." In that report the amounts paid in other cities were shown. It is also in conformity to charter provision which called for not to exceed $300 per year for this service. This provision was amended by the 1929 legislature but prior to this time it was not legal for this district to pay more than that sum for this work.

31. Was an amount allowed for an attendance officer? *Ans:* No. Not specifically. My report of January 7, 1930, showed that his work was carried on by the nurses in other systems. Since in practically all instances a child who is out must be checked up for sickness, this work is a duplication. The authority of enforcing attendance can be vested in the superintendent who naturally is in a position to delegate most of this work to the nurses and principals. I feel that no further provision need be made for a period of one year. If some extra allowance should be given to the nurses there is ample provision under contingencies.

Ability to Meet Obligations

32. Is it possible that if a budget of $280,000 be adopted that it will be entirely sufficient? *Ans:* Yes. It is not necessary to make all purchases immediately and in many instances the bid prices will be much lower than the present estimates.

35. What if the taxes are not paid in the same normal proportion? Ans: Then sooner or later the returns will become available as surplus.

38. If there is a surplus of $25,000 of receipts over expenditure what use can be made of same? *Ans:* It can be added to either sinking fund or carried with the current balances. The net result is the same.

39. Under the proposed tax reduction of 6 mills based upon present valuation, does this mean that balances of August 1, 1930, will be reduced August 1, 1931? *Ans:* No. Under the proposed plan the income for the fiscal year 1930–31 should exceed the budget requirements of $280,000 by $18,000. The balance will be reduced only by using a portion to pay bonds which become optional in 1930.

40. Can this district pay a part of the bonds which become optional for payment in 1930? *Ans:* Yes. It should be possible to pay $100,000 of the $200,000 and refund the balance in a serial plan to the state at a much lower interest rate.

41. What means has a board member for verifying the budgetary figures? *Ans:* See detailed lists on file in the office of the superintendent. Also check carefully with your fiscal report under date of June 1, 1930, which report accounts for every warrant drawn during the fiscal period. We still have two more months in the fiscal year. The final budget need not be adopted until after this period.

Superintendent Eelkema closes his study by explaining that: "These questions and answers have been prepared to help explain any points not made clear. My report is frank and I have attempted to give a complete basis for all of my figures. Any member may feel free to ask any question upon matters not made clear. I have no personal motives in recommending a tax reduction at this time other than my sincere endeavor to be of assistance in the establishment of a better business policy."

SCHOOL-BUILDING-CONSTRUCTION ECONOMIES

(Continued from Page 60)

cated steel in a width of 60 ft., adds approximately $4,500 to the cost of the building. But, it is obviously better to spend money to eliminate balcony-supporting columns, than to spend the same amount for exterior ornamental columns. Whenever a question of this sort arises, the board and the superintendent should take a stand against outside columns.

The widening of a classroom by a few inches sometimes requires that the beams be enlarged, or that specially designed beams with specially fabricated steel reinforcing be used. This at once adds considerably to the cost of construction. The board and the superintendent should decide whether the increased width of the classroom is desirable and necessary.

The board and the superintendent should not presume to interfere with strictly architectural structural features, such as foundations, walls, floor slabs, girders, beams, and other physical details. There are, however, many instances on record where a general inquiry by a board member or the superintendent has revealed places where a reduction of a few inches in the width of a schoolroom has made it possible to completely change the structural framing detail of the building, at a great saving in the cost of construction, and without interfering with or lessening in any way the educational efficiency of the building and the value of the space affected.

The amount of structural steel required in a reinforced concrete skeleton-type building is comparatively small and the obtaining of separate bids and the awarding of separate contracts for the fabrication and furnishing of the structural steel is not necessary.

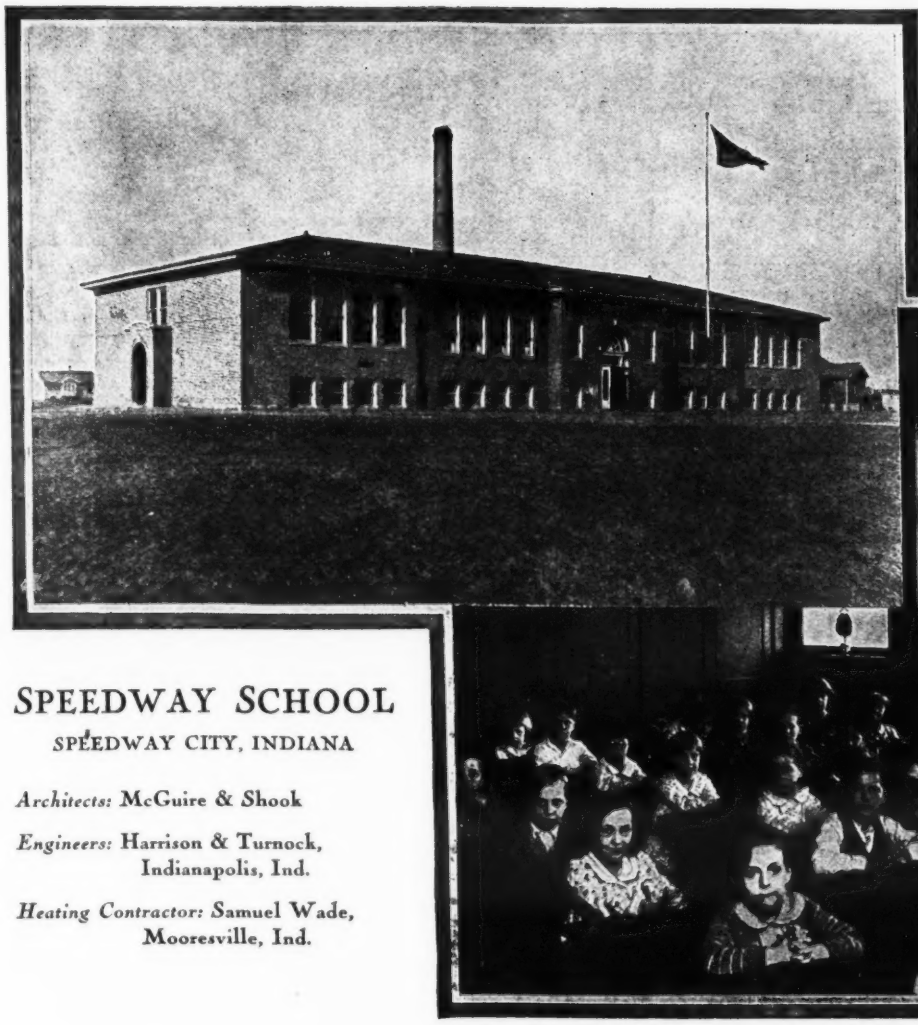
In the matter of reinforcing steel the procedure should be different. A complete engineering design should be prepared; also complete bending details and placing diagrams. When separate reinforcing specifications are prepared, with bar lists showing size and weights of the various bars which will be required, with tonnage of straight and bent bars, competitive bids

(Continued on Page 117)

BUCKEYE Heatovent

MODERN VENTILATION

in this
INDIANA SCHOOL
is supplied by



SPEEDWAY SCHOOL
SPEEDWAY CITY, INDIANA

Architects: McGuire & Shook

Engineers: Harrison & Turnock, Indianapolis, Ind.

Heating Contractor: Samuel Wade, Mooresville, Ind.

THE BUCKEYE HEATOVENT SYSTEM of Unit Heating and Ventilating

Fresh air, warmed to a comfortable temperature and diffused without draft helps to keep these children healthy in body and alert in mind.

Write for Illustrated Bulletins 124 and 126

THE BUCKEYE BLOWER COMPANY

Main Office & Factory

400 Dublin Avenue Columbus, Ohio

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ATLANTA	CHARLOTTE, N. C.	DENVER	INDIANAPOLIS	MINNEAPOLIS	PITTSBURGH	SAN FRANCISCO	ST. LOUIS
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BOSTON	CLEVELAND	GRAND RAPIDS	LOS ANGELES	NEWARK	RICHMOND, VA.	SPOKANE	TOLEDO
BUFFALO	DALLAS	HARRISBURG, PA.	MILWAUKEE	PHILADELPHIA	SALT LAKE CITY	SYRACUSE	TORONTO

Depend on Bradleys for these necessary Washroom Requirements

CLEAN, dry floors—low water bills—few plumbing troubles—every school has a right to expect these savings in the washroom. Bradley Washfountains make these savings certain. Bradleys are designed with wide, low bowls to keep hurrying pupils from dripping water on the floor. Bradleys ***cut water bills 80%*** and more by accommodating ***ten pupils*** at once—using merely the ordinary supply connections of one ***individual*** washbowl.

The patented sprayhead and central drain (exclusive with Bradley) keeps each Washfountain flushed free of suds and water at all hours of the day. Polished, marble-like surfaces never lose their lustre and do not absorb grease or water. Bradleys always look well.

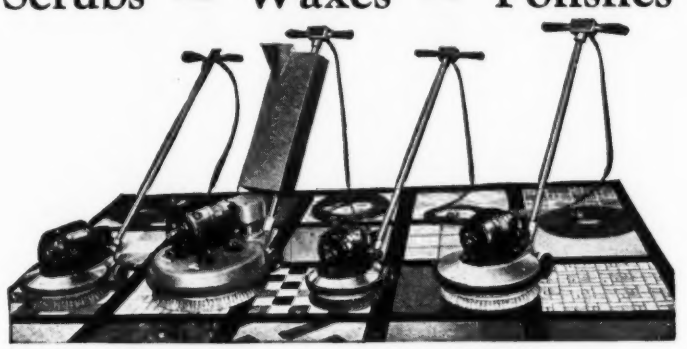
Easily installed, built to last forever, Bradleys can be had in types and sizes for every school washroom. A Bradley representative plans and installs your washroom. Be sure "Bradley Washfountains" are written into your specifications. Ask for the new Bradley catalog.

BRADLEY WASHFOUNTAIN CO.
2223 Michigan Street,
MILWAUKEE, WISCONSIN

BRADLEY
WASHFOUNTAINS

(A-988)

HILD
Electrically Operated
FLOOR MACHINE
Scrubs — Waxes — Polishes



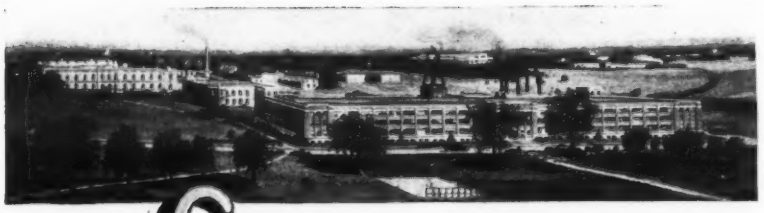
Made in Four Sizes, All Moderately Priced

With the old-fashioned mop and scrub brush rapidly losing caste, it is time for the modern schoolman to start investigating modern methods of floor cleaning. Up-to-date sanitation standards demand it. No longer is it satisfactory just to keep the floors wiped up. They should be kept glistening, and a Hild Floor Machine will do it in a quarter of the time and better than the best scrubwomen could do it.

There are four models of Hild Floor Machines—a size for every floor area and purse. The Hild Floor Machine will scrub, polish, wax, sandpaper and refinish with a thoroughness that is remarkable.

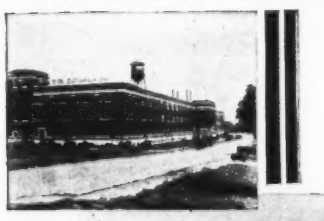
Write for a folder
and our free demonstration offer

Hild Floor Machine Co.
108 West Lake Street, Chicago, Illinois



PRODUCTS OF PROGRESS

Above is shown a general view of all the DeVilbiss factory buildings. Below are shown the general office building of The DeVilbiss Company and, at the bottom, the special rubber factory building in which DeVilbiss Air and Fluid Hose is made.



THE great factory of The DeVilbiss Company today is the product of the products manufactured within it.

Nothing less than such a factory organization can originate, design, manufacture, deliver and service the vast numbers of DeVilbiss spray-finishing outfits that are shipped from this plant to spray painters and finishers in every part of the world.

Equally is it true that such universal preference and volume of business cannot be created and maintained by any product less outstanding in its superiority or less capable of delivering to its purchaser constant and lasting satisfaction in ownership.

To those engaged in building maintenance DeVilbiss offers specialized outfits of all sizes and capacities. We will gladly send you catalog showing spray equipment suitable for school building maintenance.

Spray guns of various types and sizes . . . Pressure feed paint tanks and containers . . . Spray booths, exhaust fans and approved lighting fixtures . . . Masking paper and liquid spray shield . . . Air compressing equipment . . . Air transformers and accessories . . . Air and fluid hose and connections . . . Complete outfits from the smallest hand-operated units to the largest industrial installations.

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Spray- PAINTING FINISHING ***System***

THE DEVILBISS COMPANY . . TOLEDO, OHIO
Sales and Service Branches:
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ARM-A-COTE
The Modern Wax for Floors

The Finish you have been wanting!

ARM-A-COTE will save you time, money, and labor.

Easiest to apply and keep . . . The most beautiful in finish.

ARM-A-COTE cleans, resurfaces, and preserves in one operation.

May we send you sample?

CHURCHILL MANUFACTURING COMPANY
Sioux City, IOWA.

CLEAN YOUR FLOORS *the dustless way with* SPEED-SWEEP

Self Moistening Brushes

Why add sawdust to the dirt that is already on your floor? This method does away with sweeping compound.

Here is shown a cross-section of the patented SPEED-SWEEP construction. Note the light feed tufts that carry the moisture from the reservoir to the dust. Also the adjustable handle enabling sweeping at the proper angle.

Here is the economical and dustless way to clean your school floors. It is ECONOMICAL because you do not have to treat the floors nor buy expensive sweeping compound. It is DUSTLESS because the brush bristles moisten the dust, making a sweeping compound of the dust itself as you sweep.

Only actual usage can prove the merits of SPEED-SWEEP. Mail the coupon today.

Milwaukee Dustless Brush Co.,
102—22nd Street,
Milwaukee, Wisconsin.

Send me details of your FREE 30 DAY TRIAL of a SPEED-SWEEP Brush.

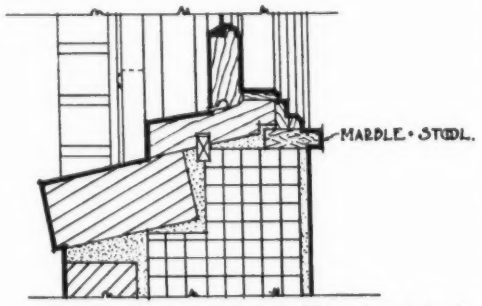
School .....

Address .....

Superintendent .....

(Continued from Page 114)

may be taken from the various reinforcing steel companies, resulting in keen competition and low bids.



SILL SECTION · SHOWING · MARBLE STOOL.

SILL · SECTION · SHOWING · PLASTER STOOL.

WINDOW CONSTRUCTION FOR CLASSROOM

15. *Of what material should window sills and window stools be constructed?*

Marble and stone window stools might be replaced with stools made of brick or plaster. Each type of construction should be considered and the reasons for its use or nonuse clearly understood. It is false economy, both in original investment and subsequent maintenance cost, to build window sills and stools of any other than the very best materials.

Window sills and stools are subjected to the action of the elements to a greater degree than any other part of the interior of the building. The drying, rotting, and paint-removing effects of the sun and rain, and of water dripping from flower pots and other receptacles placed upon the sills, have repeatedly demonstrated that sills and stools should be built of durable material, such as stone, brick, or marble. These are two of the places where the best is none too good. Therefore, marble, stone, or brick stools are far more economical in the long run than wood, or plaster stools, and should be substituted with less expensive construction only, if the total cost of the building is so high that advantage must be taken of every possible item of saving.

(To Be Continued)

SOME PROBLEMS IN COMPUTING COMPARABLE UNIT SCHOOL COST

(Continued from Page 45)

in facilities, it is believed, should be charged to "Physical Maintenance of School Plants."

In the case of new buildings, when first erected, we capitalize the cost of furniture and that part of the cost of machine-shop and laboratory equipment, which possesses all or some of the qualities of value, permanency, immobility, etc. We rarely capitalize the cost of a new piece of instructional, engineers; janitors; or furniture equipment for an old building. We do not capitalize the cost of library books for new buildings, because such funds are provided partly by the state and partly by the city, but in both cases out of current revenue. Liberality in capitalizing school costs tends to minimize current expenses and to inflate "Capital Outlays." In other words, we believe, generally, that unless the expenditure is of the kind for which bonds might be legally issued, cost should not be capitalized.

Suggestion: (1) The feasibility of developing a comparable unit cost for "Capital Outlays" should be further studied. (2) In the meantime it is recommended that certain historical, physical, and financial facts be displayed in connection with each building. (3) Too liberal a policy with regard to capitalizing school costs is to be discouraged.

8. Cost of Debt Service

Definition. Bulletin No. 24 defines "Cost of Debt Service" to be the costs (*a*) of redemption out of *current* funds of short-term loans, and the interest charges thereon; (*b*) of the redemption out of *current* funds of bonds, and the interest charges thereon; (*c*) of payments out of *current* funds into sinking funds, and (*d*) other items of debt service. The operations of the sinking funds, as such, are separately accounted for.

Point 1. What is the practice in the several school districts with regard to the method of borrowing funds for the acquisition of new school plant, (*a*) issuing bonds of the sinking-fund type, or (*b*) issuing bonds of the serial type? Also, has the board of education exclusive control over such matters, or must it share in a bonding program for the entire community, with some statutory or constitutional limit upon the whole?

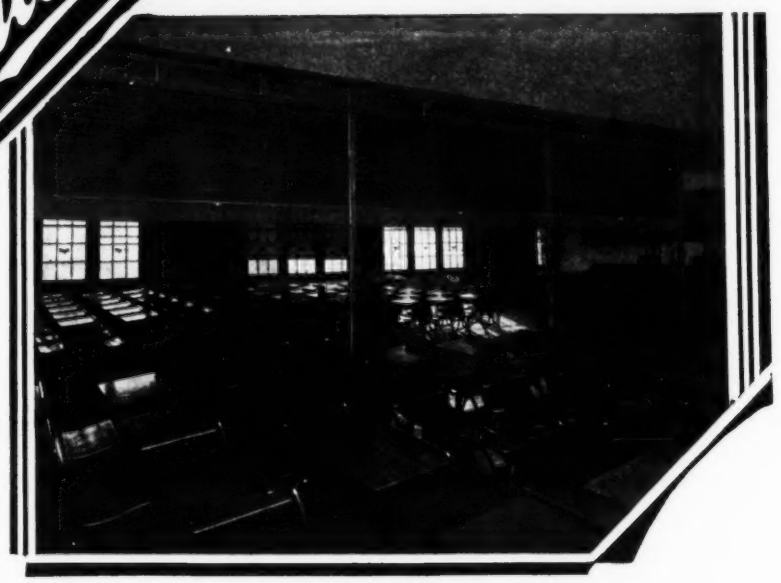
Point 2. Does the board of education receive and use funds for debt-service charges, or are appropriations made to the comptroller, or other financial officer, as in New York City? (The sum of $26,807,752.89 for the school year 1928–29.)

Point 3. Has a consistent school-building program been carried along, year by year, corresponding closely to the increase in school population, so that a comparable spread of debt charges can equitably be made, using such factors as attendance, register, or whole population? Or have there been periods of little building activity, followed by periods of intensive effort to catch up, with the result that there will be irregular bunching of debt-service charges at times in the future? It is supposed that, for one thing, the lack of building operations during the war threw all growing communities behind in providing school facilities.

Point 4. How much later than the beginning of the expenditure period are current taxes and other revenues actually receivable in the several communities? In other words, for how many months must the school system live on moneys borrowed against anticipated revenues? Do the

Wilson

ROLLING PARTITIONS



Chattanooga Ave. School, Chattanooga, Tenn., Showing Classroom Use.

Better Than Walls for Dividing Rooms

Make the most out of the Auditorium, "Gym", Class Rooms, etc.

WHEN class rooms are divided by Wilson Rolling Partitions, all rooms—or any desired number—may be thrown into one for assembly or entertainment at a few minutes notice.

The "Gym" may be divided into a number of separate groups whenever desired.

The Lecture Hall may be similarly divided to permit a number of group meetings simultaneously.

Many suggested uses shown in our booklet.

Write for Catalog No. 14

Many Points of Convenience and Economy

1. Roll overhead or sideways, out of the way, when not in use.
2. Many small rooms or one large one at will.
3. Retard penetration of sound from one room to another.
4. Avoid expense of separate "Assembly Room".
5. Permit many simultaneous activities in "Gym" or other halls.
6. Confine heating and lighting expense only to the sections in use.
7. May be made to harmonize with woodwork of any room.
8. Perfect operation because of our service and installation offices in principal cities.

THE
J. G. WILSON CORPORATION
11 East 38th Street New York City
Offices in All Principal Cities

Also Manufacturers of Sectionfold Partitions and School Wardrobes.

OVER FIFTY YEARS IN BUSINESS

school years and the fiscal years generally correspond, or otherwise?

Suggestion: It is evident that we need, and should seek, a larger body of information than is now available before discussing the manner of stating in statistical and narrative form comparable facts as to "Debt Service."

9. Cost of Fixed Charges

Definition. Bulletin No. 24 defines "Cost of Fixed Charges" to be costs of (*a*) pensions, (*b*) rent, (*c*) insurance, (*d*) taxes, (*e*) compensation law, and (*f*) payments of orders of preceding year.

Point 1. "As to pensions," it is assumed that reference is made to the joint-contribution actuarial plans which have come into existence during the past 15 years. These plans contemplate contributions to reserve or accumulation funds by the board of education for the whole of the liability for services of the member rendered prior to the adoption of the plan, and for joint (and, generally, equal) contributions by the board of education and the member for services rendered subsequent to the time of the adoption of the plan. A court decision in New York state holds that pensions are deferred salaries. Following this line of reasoning it would seem that payments into the pension-reserve and accumulation funds have some analogy with payments into bond-sinking funds, since they both represent an accumulation of current revenues to meet future liabilities.

Are pension reserve funds accumulated out of education funds, as such, or are the payments made by the city to a separate board, with independent powers of administration, as in New York City?

Point 2. It is thought that insurance is in reality a cost of maintenance of school plant, because it is a fee paid to insure the restoration of the plant in case of extraordinary damage, without making an unforeseen demand upon maintenance funds.

Point 3. The item "payments of orders of preceding year," as the writer understands this term, is a bulk statement of payments made during the current report year on account of liabilities incurred in a prior report year. It is not clear, however, whether this is a memorandum (only) of payments fully distributed to the appropriate fundamental cost classifications, or whether it is considered as a cost in itself, and is not distributable. If the latter, the writer disagrees, for all costs are to be reported and classified on the *payment basis*, and, therefore, all payments during the period should be completely distributed, regardless of the prior period in which the obligation had its origin.

Suggestion: It is necessary to have a common understanding whether or not the subitems of "Fixed Charges" are to be handled as separate cost items in themselves, without distribution to the fundamental cost groups.

10. Cost of Administration (General Control)

Definition. Bulletin No. 24 defines "Cost of Administration (General Control)" as the cost of salaries of officers, clerks and other employees, supplies and other expenses, (*a*) of the board of education as such, (*b*) of the several officers and bureaus in administrative charge of the instructional, business, coördinate, and auxiliary activities of the school system, (*c*) legal services, etc.

Point 1. It is important to agree upon the positions which should be classified under educational administration. In New York City we find it convenient to divide this group into General Professional Control and Specific Professional Control, and for purposes of explanation the following outline is inserted:

General Professional Control includes the superintendent of schools, the associate superintendents, the district superintendents, the board of examiners, the director of reference and research, and the director of attendance and school census.

Specific Professional Control includes the directors, supervisors, inspectors, and others who are deputized to perform some definite function which is an integral part of the general authority and duty of the superintendent. In addition to the usual supervision by the associate and district superintendents, specially qualified subordinates are employed to supervise the vocational activities; manual training; evening schools; continuation schools; classes for adults in English and citizenship; industrial work for boys in continuation schools; extension activities; playgrounds and recreation centers; visual instruction; libraries; health education; educational hygiene; athletics; physically handicapped children; drawing; music; high-school organization; foreign languages in high schools; homemaking; sewing; mentally defective children; art in high schools; kindergartens; blind and sight conservation; industrial and placement work for physically handicapped children; civics and correlated subjects; school-savings banks and thrift education; medical examinations of teachers; foreign languages in junior high schools; vocational investigation, guidance, and placement; art weaving; speech improvement; etc. These groups are wholly administrative. The salaries of teachers and field workers in these subjects are applied to "Cost of Instruction," "Cost of Coördinate Activities," or "Cost of Auxiliary Agencies," as the case may be.

Point 2. The question often arises; Is the adequacy of supervision measured by the teacher or pupil load of the supervisors? Can some comparable facts be developed along that line?

Point 3. Here, as in other cases, a knowledge of salaries paid is necessary to give pertinent meaning to bare unit costs.

Point 4. What constitutes "other expenses" of cost of administration? For example, is the cost of telephone service generally stated here, or in some other classification?

Suggestion: (*a*) A knowledge of numbers of superintendents, directors, supervisors, etc., the salaries paid, and the teacher or pupil load are necessary to establish comparable facts with regard to "Cost of Administration — Salaries." (*b*) The items comprising "other expenses" of administration should be more definitely stated.

In Conclusion

As stated at the outset, this outline does not purport to be a complete presentation of all problems which will arise in attempting to develop a full set of comparable unit costs. It is intended to arouse discussion, to promote agreement as to certain aspects of classification, and lead on toward some accomplishment.

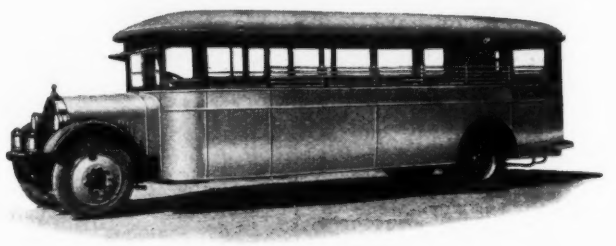
(Concluded on Page 121)

CUSTOM BUILT SCHOOL BODIES

DIAMOND SEAL — WIENER BODY CO. — NEWARK N.J. — MOTOR BUS BODIES

FOR EVERY KNOWN CHASSIS

NOT STANDARDIZED



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8 IMPORTANT REASONS FOR SPECIFYING "WIENER BODIES"

1. Comply with all city, county, and state requirements.
2. Engineered and built in a modern plant with modern methods.
3. Blending attractiveness, sturdiness, and lightness.
4. The safety and comfort of your pupils are assured.
5. Years of service with low maintenance cost.
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8. Built and guaranteed by the pioneers of the bus body industry.

FOR YOUR SCHOOL BUSSES—SPECIFY "WIENER BODIES"

Priced and Built Right for Your Individual Requirements. Let Us Quote YOU.

WIENER BODY COMPANY, ⁘ ⁘ Newark, New Jersey

RID YOUR SCHOOL OF NOISE

YOU can *permanently* rid your school of noise by applying Acousti-Celotex to the ceilings.

Acousti-Celotex will absorb disturbing noises in classrooms, assembly halls, corridors. It improves the acoustics of lecture halls, auditoriums, music halls . . . and absorbs the racket of manual training rooms.

Acousti-Celotex is a cane fibre tile that comes in single, finished units which are quickly applied to the ceilings in new or old buildings.

Write for our interesting folder "Better Study Conditions in Schools." The services of our engineers are available to help you solve your acoustical problems. Acousti-Celotex is sold and installed by approved Acousti-Celotex Contractors. The Celotex Company, Chicago, Illinois.

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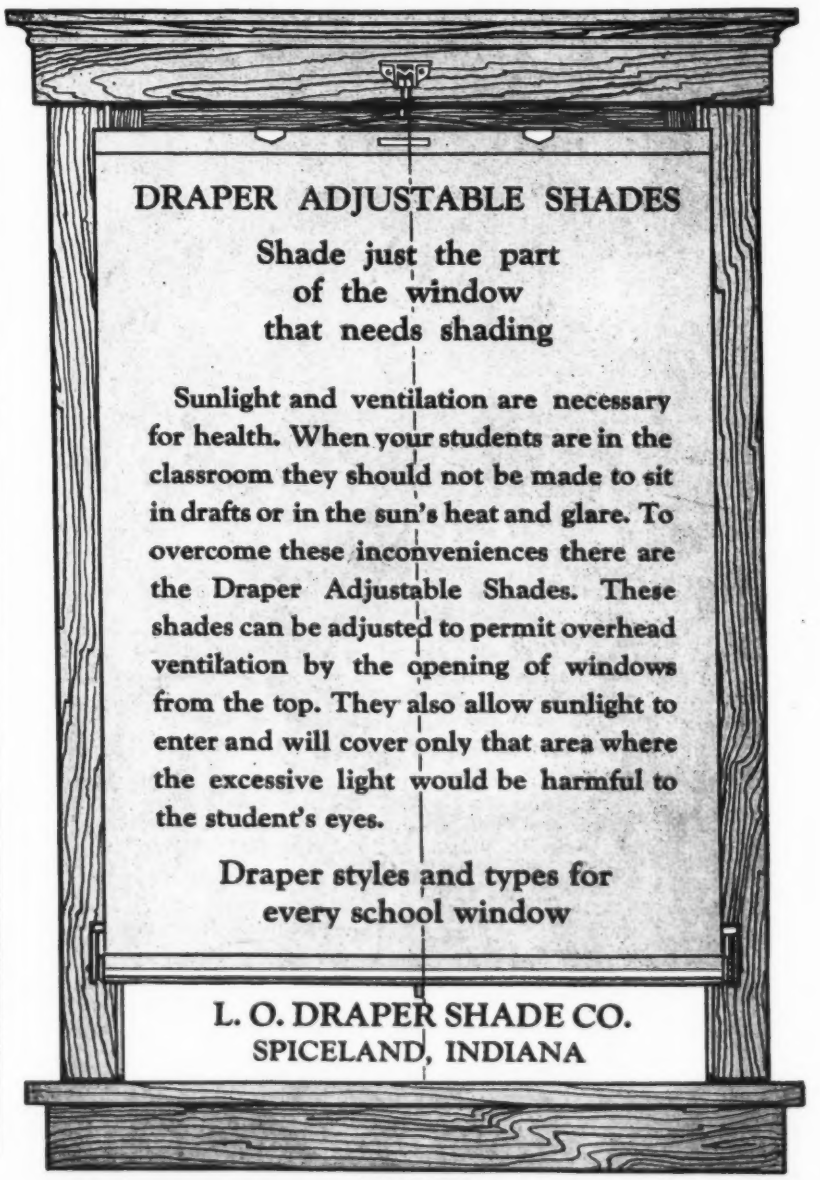
FOR LESS NOISE - BETTER HEARING

The word "Celotex" (Reg. U. S. Pat. Off.) is the trademark of and indicates manufacture by The Celotex Company, Chicago, Illinois


DRAPER ADJUSTABLE SHADES
Shade just the part of the window that needs shading
Sunlight and ventilation are necessary for health. When your students are in the classroom they should not be made to sit in drafts or in the sun's heat and glare. To overcome these inconveniences there are the Draper Adjustable Shades. These shades can be adjusted to permit overhead ventilation by the opening of windows from the top. They also allow sunlight to enter and will cover only that area where the excessive light would be harmful to the student's eyes.
Draper styles and types for every school window
L. O. DRAPER SHADE CO.
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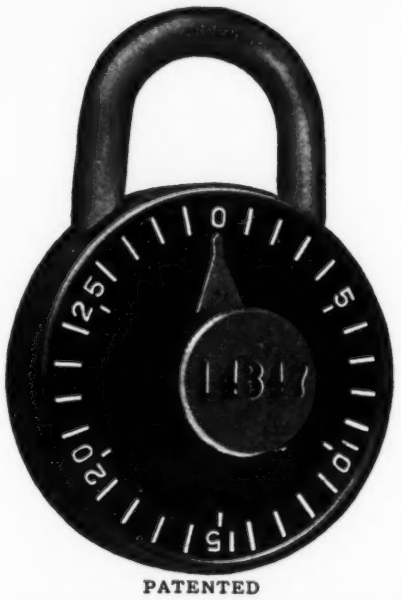
Not the cheapest--nor the costliest --but the BEST

and worthy of installation in your school



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BARRETT KEYLESS LOCK

- Cannot get out of order.
- Cannot be left on combination.
- Cannot be turned back to combination.
- Cannot be turned off combination while open.
- No springs to rust, break or fail to function.
- Entirely rust proof interior, with brass outer case.
- Easily read dial, with option of color combinations.
- More than 25,000 combination changes.

You can better appreciate its many advantages by personal inspection. We will be extremely pleased to furnish a sample upon request.

BARRETT LOCK COMPANY
4720 North Eighteenth Street Philadelphia, Pa.

OLD desks made like NEW with

The American Sanderplane

Here is a portable belt sander that EVERY school should have for its maintenance department. Heretofore refinishing school desks, tables, benches, etc., has been a slow and expensive operation. But now . . . this work is done more quickly, economically and satisfactorily with the American Sanderplane.

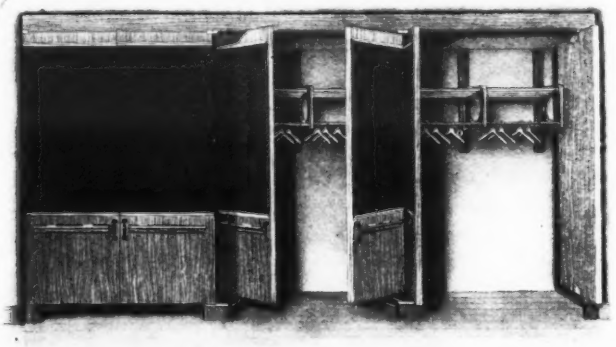
An Asset to Manual Training Departments

Time that can be saved in sanding operations in these departments is well worth while, for it can be spent to much better advantage . . . Thus the Sanderplane becomes a valuable utility, for it IS a big time saver. It is light in weight and operates from the light socket or wall plug . . . and so, any boy can operate it.

25 Years' Leadership

For more than twenty-five years "American" Sanders have been recognized as unsurpassed in quality and dependability . . . this is reason enough for your school insisting on an "American" sander. Let us send you the complete story regarding the Sanderplane without obligation . . . Just write to

THE AMERICAN
FLOOR SURFACING MACHINE CO.
506 South St. Clair St. — Toledo, Ohio.
Branches in Principal Cities



EVANS "VANISHING DOOR" WARDROBE CLASS B-B, WITHOUT JAMBS OR TRIM

The wardrobe illustrated is made for plaster ends, backs and ceilings. No jambs nor trim required; only doors, fillet, hinges and interior of racks and garment hangers completing the installation.

The hinges used are of heavier construction than any previous manufacture and are unconditionally guaranteed to last the life of the building. There are no noisy tracks nor rollers to stick or bind, nor intricate mechanism to get out of order.

The "Vanishing Door" wardrobes are furnished complete in the knockdown. All woodwork is cut to size and only needs nailing in place. The hinges are easier to put on than common butt hinges. The cost of installation is small.

Catalog "K" fully illustrates many types of school wardrobes, with specifications and price list. Write for a copy.

W. L. EVANS
WASHINGTON, INDIANA, U. S. A.

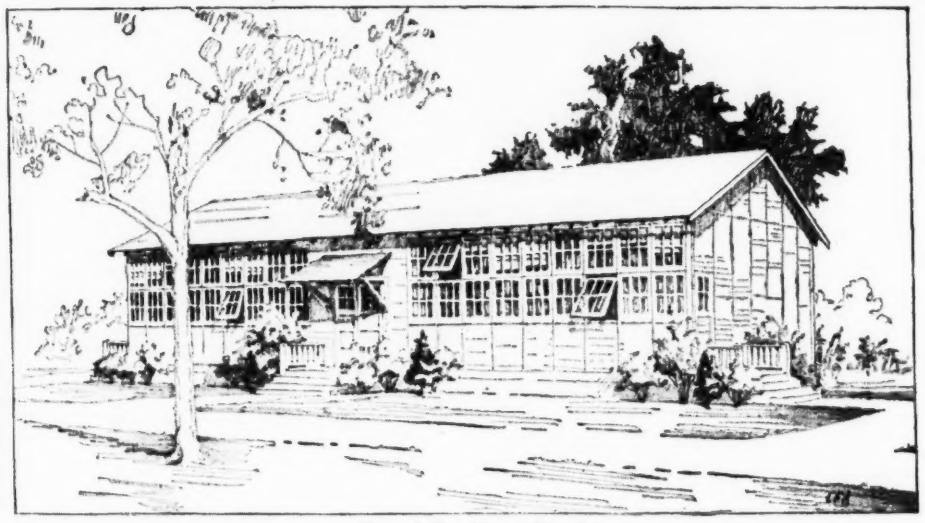
VANISHING DOOR WARDROBES

PURIFY THE AIR

CROWDED conditions in schools and institutions make the use of Falcon Deodorizing and Air Purifying Blocs and Crystals an absolute necessity. They actually recondition the air and are not merely perfumes. Falcon Blockettes for use in urinals and toilets are easy to use and economical. Write for samples.

EAGLE SOAP CORP.
64 E. Jackson Blvd., Chicago, Ill.

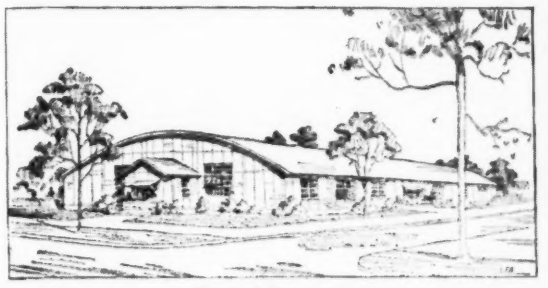
FALCON DEODORIZING PRODUCTS



Typical Two-Room School

Stronger, Airier, *Insulated* Buildings for Every School Housing Need

Circle A Schools and Gymnasiums provide attractive quarters for any size of student body—*at a reasonable cost and in a very short time.* For instance: 4 men erect the one-room school in five days. Other buildings "go up" correspondingly as fast. ¶ Circle A walls are insulated—four layers thick. They keep out heat, cold, and noise. ¶ Circle A Buildings are reinforced at every three feet and at all four corners. They are truly more rigid than most frame buildings. ¶ And, last but very important—Circle A Buildings are handsome substantial structures that can stand with pride in the most expensive company. Send for interesting details. No obligation.



Typical Gymnasium

CIRCLE A PRODUCTS CORP.
600 S. 25th St., Newcastle, Ind.

CIRCLE A BUILDINGS
Portable

Also manufacturers of Circle A Sectional Partitions, Folding Partitions, Rolling Partitions, Kitchen Units, Portable and Permanent Steel Grandstands, Portable Wood Bleachers.

(Concluded from Page 118)

The writer assumes that each school financial officer is compiling and presenting for local use such costs as he has found to have value from an historical, accounting, and administrative viewpoint. It is also assumed that, eventually, Bulletin No. 24 will be the accepted guide to the classification of the various costs.

An attempt has been made here to show that bare unit costs will never be understandingly comparable, unless school accounting officers agree upon some interpretative, correlation, or "hook-up" factors which will provide a definite explanation of differences in unit costs. To accomplish this, it may be necessary to insert a considerable amount of narrative material into future school financial reports.

It should be repeated, that unit costs will not be indicative of instructional results. In the end, the only successful school systems will be those which approximate the ideal of granting to all children, *each according to his maximum capabilities,* liberal and free opportunity to learn and benefit from the accumulated experience, knowledge, and wisdom of mankind.

THE SUPERINTENDENT AND THE BUSINESS MANAGER

(Concluded from Page 36)

responsible executive, keep deriving such objective data, keep planning the projected work, and keep fixing higher goals for professional achievement? The answer is that your community will some day call you for an accounting. What evidence have you to present to satisfy those who pay?

The best single index of efficient school administration is an alert community, well informed, with good will and an ardent desire to support more and better public education.

A SCIENTIFIC STUDY OF ACOUSTICS

(Concluded from Page 54)

Experience with a number of existing auditoriums of acceptable acoustic quality have made it possible to formulate the following table, in which the acceptable limits of the standard reverberation time are expressed for rooms of different volume, used for speaking or musical performances.

Table I

Vol. of Room cu. ft.	Limits of reverberation time (in seconds) Half Audience	Maximum Audience
10,000	0.9-1.2	0.6-0.8
25,000	1.0-1.3	.8-1.1
50,000	1.2-1.5	.9-1.3
100,000	1.5-1.8	1.2-1.5
200,000	1.8-2.0	1.4-1.7
400,000	2.1-2.3	1.7-2.0
600,000	2.3-2.6	1.8-2.2
800,000	2.5-2.8	1.9-2.3
1,000,000	2.6-2.9	2.1-2.5

The limits given are not to be regarded as rigid. Auditoriums are known which exceed these limits in either direction by several tenths of a second, and yet are of fairly satisfactory quality. Large auditoriums used for sound pictures may be designed for a figure somewhat less than the minimum given in the table.

Calculation of the Reverberation Time

As a result of Professor Sabine's investigations, a formula has been worked out, giving the reverberation time of a room. In this formula "t" stands for reverberation time in seconds, v stands for volume of room in cubic feet, and a stands for total absorption of the room. The following relation is the result:

$$t = \frac{0.05\,V}{a}$$

Different materials differ considerably in their absorbing powers for sound. The most complete absorber known is an open window. It is possible that a small amount of sound may be sent back by diffraction from the edges of the window, but this quantity is so small that it is permissible to say that an open window is a perfect absorber. The absorption coefficient for different substances varies somewhat with the frequency of the incident sound. In Table II, the values given are for a frequency of 512 (Watson).

Table II. Sound Absorption Coefficients

Concrete	0.015
Glass, single thickness	.03
Marble	.01
Open window	1.00
Plaster	.03
Stage opening	0.25—.40
Ventilators (50 per cent open space)	.50
Wood, varnished	.03

The values of the total absorption of individual objects as determined by Sabine, are given in Table III. The unit of absorption which these values express is the absorption of 1 sq. ft. of open window.

Table III. Total Absorption by Individual Objects

Audience (per person)		4.7
Church pews (per seat)		.2
House plants (per cu. ft.)		.003
Seats, upholstered (per seat)		1.0-2.5
Seats, cushions, cotton (per seat)		2.2
Seat cushions, hair covered with canvas and light damask (per seat)		2.3
Settees, upholstered in hair and leather (per seat)		3.0
Wood seats, for auditoriums (per seat)		.1

The calculation of the total absorption of the empty rooms studied by Mr. Heyl was made as follows, the computations being carried to the nearest integer:

Wood floor	4,550	0.03=137
Plaster ceiling	4,550	.03=137
Plaster walls	5,320	.03=160
Stage opening (no furniture, bare walls)	600	.25=150
Wooden seats	500	.1 50
Total absorption of the empty room		=634

♦ South Pasadena, Calif. The girls' league of the high school has approved new summer uniforms for girl students. The uniforms are made in one style, of cotton material, with short sleeves, set-in plaits, and V neck. The uniforms are worn from May 1 to November 1.

Book News and Reviews

THE DEVELOPMENT OF THE AMERICAN SCHOOL TEXTBOOK

(Continued from Page 59)

new ones were being placed upon the market by hundreds every year.

Prices reached their highest point during these latter years of the 80's; but, because of the increased expense of marketing schoolbooks, the profits were much reduced, and chaos seemed to be near. In 1890, several publishers decided that the only way to stop the abuses that had arisen in the schoolbook business, was to engage in a movement that would cause methods approved as strictly safe and sane to be used, ignoring cut-throat competition and other unbusinesslike methods that might be used by any other publishers.

Such a movement was begun early in that year. It was in the form of an organization that bought the best and most popular schoolbooks in existence and added to them new books as fast as changing needs of the schools made them necessary. This was an organization of individuals, and not of firms or corporations. It did not buy all the schoolbooks in the country, nor did it undertake to increase or limit prices, or to control or to monopolize the business of publishing and selling schoolbooks.

The fact is, there not only never was in the United States a "schoolbook trust" or monopoly, but it is not likely that there ever will be such a thing. It is always possible to buy printing presses and type, to employ printers and bookbinders, and to induce educators and others to write schoolbooks. So a "schoolbook trust" can exist only in the imagination of a small publisher, or in the "anxious to make a hit with the public" brain of somebody at work in a state legislature.

Better Authorship and Printing

Important reforms that were accomplished by the new organization were better schoolbooks in contents, in durability, in appearance, and lower in price, and the weeding out of dubious methods in marketing schoolbooks. Competition did not cease. On the contrary, competition continued, but without objectionable conditions. The number of publishers dealing in schoolbooks increased to nearly two hundred. The business in all its phases became more active.

Leading educators in every branch of school and college and university work wrote schoolbooks. New and better methods of teaching were incorporated in schoolbooks, and the progress of education in general was promoted rapidly and effectively by these books, a fact acknowledged by educators quite generally. The year 1890 thus marked the beginning of the remarkable advance of public education and all other kinds of education in schools and higher institutions in the United States unequaled anywhere else in the world.

Reference has been made to the reduction in the prices of schoolbooks. In many parts of the country, previous to 1890, schoolbooks were sold by middlemen at a gross profit of from 50 to 100 per cent above the retail prices fixed by publishers. This was a serious imposition upon the purchasing public. It was obviated by the policy of conservative publishers, who offered to send their books by mail to purchasers at any address upon receipt of the wholesale prices. A larger discount was given to local book dealers, thus enabling them to sell schoolbooks at the retail prices fixed by the publishers. Similar enlarged discounts were given to contracting counties, towns, cities, and states. There was, therefore, not only no increase in the prices of schoolbooks, but a reduction which is maintained everywhere to this day.

All the time that changes advantageous to publishers, the schools, and the public were being made in the manner of the marketing of schoolbooks, steady improvement in the methods of presenting their subject matter, and in the physical manufacture of schoolbooks, was being made. Typography, illustrations, paper, and binding of the American schoolbook became beautiful and useful in the highest degree, and nowhere else in the world is the schoolbook so thoroughly fitted for its purpose as is the case in the United States of America.

Changes in Adoption Methods

Beginning with the year 1900, the most important changes relating to the adoption and sale of schoolbooks in the United States were made, and all sorts of legislation on those subjects were undertaken by the states. Some of the laws enacted by state legislatures were the result of exhaustive investigations by thoughtful legislators having in view the real interest of the people. Some of the attempted legislation, fortunately not always successful, was fostered by cheap politicians inspired solely by self-interest.

In 25 states the selection of textbooks for elementary public schools is made by the state board of education, or by an especially created textbook commission; in 5 states selection is made by the county board of education, or by an especially created county textbook commission. In the remaining 18 states in which there is neither state nor county adoption, the textbooks are selected by the district school authorities.

Nearly all the great cities of the country have textbook laws enforced in accordance with the wishes of the citizens of those cities. Instances are the following:

How Textbooks Are Chosen

The City of New York has an open or multiple list. Once every year opportunity is given for adding new books to the list. At that time publishers may submit books to the board of superintendents, who in turn submit them to committees of teachers for examination. If the books are found by these committees to be satisfactory and suited to the course of study for the City of New York, listing is then authorized, usually for five-year periods.

In Chicago, the plan for adopting textbooks requires first, that the books must be submitted to the instruction department for examination by committees that make their reports to a superintendent, who in turn makes his recommendation to the board. The multiple plan prevails in Chicago. When the board adopts the recommendation of the superintendent, the books are put on the list of books that may be used in the Chicago schools. The principal of each school then makes a selection from this approved list, and under the Illinois law, the books so selected must remain in use for a period of five years.

The Philadelphia plan is as follows: The public schools of Philadelphia have an open list of textbooks. The books offered by publishers for listing must be sent in January of each year to the secretary and business manager of the board of education and must be accompanied by an official letter addressed to that officer. This letter must contain the titles and prices of the books offered. Sample copies of the books offered for listing must be sent by publishers to the chairman of the committee on property of the board of education, to the secretary and business manager of the board, and to the superintendent of schools. The annual listing of textbooks by the board of education takes place in the month of March.

Cincinnati has a board of education which adopts textbooks under the Ohio law. In that state, five kinds of districts are established by the law; county, rural, village, exempt village, and city. The board of education of each of these districts, with the exception of the county district, adopts textbooks under the same law. The county district cannot "adopt" books, but it may have a "recommended" list. Each board of education in Ohio — and all that follows applies to the Cincinnati board — adopts books for a period of five years, at the expiration of which any board may change or readopt such books.

Any books may be changed within the adoption period, provided a five-sixth vote of the board is made in favor of the change. The five-year period may start in any year. Usually some changes and adoptions are made every year. Theoretically, only those books may be adopted by an Ohio board of education which have been approved by the state schoolbook commission and the net prices fixed by that commission. This rule, however, is a mere formality, as practically every book of every publisher is submitted to the state commission and approved by it. The Ohio law provides that the net price fixed by the state commission shall not exceed 75 per cent of the publishers' list price. The adoption power is entirely with the local board of education of each district. The tendency of these boards, however, is to take recommendations from their superintendents of schools.

This tendency is now almost universal. Many superintendents appoint committees to recommend books to them; and this is particularly true of Cincinnati, where the superintendent always uses the committee system and generally sends the committees' recommendations to the board of education for adoption. The committee plan, however, has no legal status; and the board of education is not compelled to accept a superintendent's recommendation.

The State Uniformity Idea

Some states have what is called "state uniformity laws." These laws provide that the state board of education or the state textbooks commission shall adopt both basal and supplementary textbooks for use in the public schools; that there must be one series of basal textbooks upon each subject; that the names and prices of these books must be listed in contracts with the publishers, the prices to include net wholesale, exchange, and retail.

These laws provide that textbooks cannot be changed during a period of five year unless a three-fourths vote of members of the board or of the commission is made in favor of the change. Adopted supplementary books are listed by name and the prices are fixed as in the case of basal books.

Some of the states that have "state uniformity laws" permit so-called independent school systems to make adoption of textbooks by their

(Concluded on Page 125)

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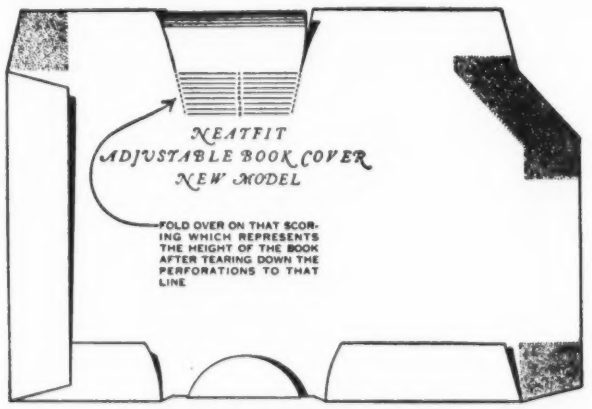
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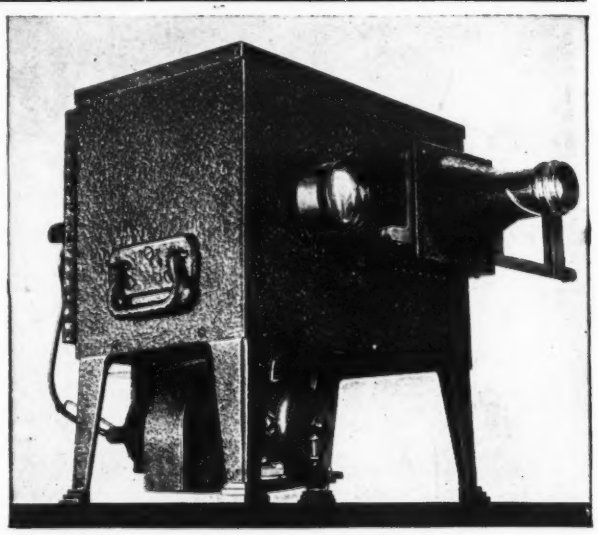

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(Concluded from Page 122)

own boards of education, ignoring the adoptions made by the state board or state commission. Independent school systems are usually those which, whether receiving money for the support of the schools from the general state school funds or not, tax their own citizens for the support of their schools.

In addition to general "state uniformity laws" for the adoption of textbooks, the State of Georgia has what is called the "yeomans law" for the adoption of textbooks by independent school systems. Educators throughout the country, who have acquainted themselves with the "yeomans law" regard it as the best of all laws for the adoption of schoolbooks. The provisions of this law are briefly these:

Any publisher may submit schoolbooks for examination with a view to adoption. The prices offered are net wholesale and exchange. The retail price is fixed by the board and cannot exceed 15 per cent of the net wholesale price added to that price. Copies of all books adopted under the "yeomans law" must be filed with the state department of education accompanied by a sworn statement of the net wholesale prices and the exchange prices. Such books and such prices are subject to inspection by any citizen of the state. Books once adopted cannot be changed during a period of five years.

State Printing Schemes Unwise

State printing of textbooks is a matter that has been acrimoniously discussed in some of the states. State printing of textbooks requires the establishment and operation of a state printing plant with numerous officials and all necessary machinery for the manufacture and distribution of textbooks. So far, only two states, California and Kansas, have state printing plants. In each of these states, books may be of local origin or plates may be leased from publishers. In neither of these states has the state printing plant been self-supporting, nor has it printed any considerable proportion of the books used.

The people of both states are taxed to pay part of the expense of maintaining the plant. Nineteen states have investigated the California and Kansas state printing systems and have rejected proposals to adopt them. In 1927, Mississippi made a careful investigation of both the California and Kansas state printing plans and refused to adopt them in whole or in part.

It is a fact that an overwhelming majority of teachers and other school officials oppose the state printing of textbooks. Educators, with few exceptions, declare that state printing of textbooks is an injury to education, because the plan excludes from the public schools the best textbooks. These educators say state printing of textbooks prevents prompt revisions of textbooks so as to bring them up to date. The larger textbook publishing concerns will not lease their plates to a state printing plant. In consequence, it is claimed, only plates of inferior books can be leased by state printing plants.

Since the year 1900, the writing of textbooks for use in the schools and colleges of the United States has been an engaging and profitable field for many leading educators. There is not a branch of education in which this is not true. From the simplest material prepared for kindergartens, succeeded by every kind of textbooks used in elementary schools and high schools, and supplemented by books in all important languages, including Latin, Greek, Italian, French, Spanish, and other foreign tongues, and books dealing in a highly technical way with subjects known as "the sciences," American authors, every year, are induced by publishers to submit manuscripts with a view to publication. The process of writing textbooks is often very slow. There are instances of widely used textbooks that are the result of nearly a lifetime of experimenting in classrooms by able teachers.

As methods in education have increased and improved, so textbooks, to meet the requirements of such methods have increased and improved. It is not an exaggeration to say that civic leaders throughout the country could find no more important field for investigation and support than the writing, manufacture, sale, and use, of that triumph of American genius, the American schoolbook.

NEW BOOKS

Literary Background Tests

By C. T. Logan and Carrie B. Parks. Price per class set, 56 cents. D. C. Heath & Company, Boston, Mass.

The authors use the new types of test questions to determine the familiarity of students with English and American literature. The two sets of tests are inclusive and depart in a very satisfactory way from the hard-and-fast characteristics of standardized tests. The so-called prevocative questions concerning modern literature do not appeal to the reviewer as being up to the high standards set by the tests proper.

Oral Tests for Correct English

By Edward H. Webster. Paper, 92 pages. Price, 60 cents. World Book Co., Yonkers, N. Y.

This little manual which contains extensive testing material for the use of teachers, has been prepared by an author with wide and varied experience in teaching English. It is intended to accompany *Daily Drills for Better English* and provides a series of tests by means of which the teacher can measure the progress of the students. The student is also given opportunity to compete with his former scores, or with the average of the class.

Tests have been found successful in the classroom and will be helpful to teachers in clearing up language difficulties of the students.

Progressive Business Arithmetic

By William L. Schaaf. Cloth, 644 pages. Price, $1.44. D. C. Heath and Co., Boston, Mass.

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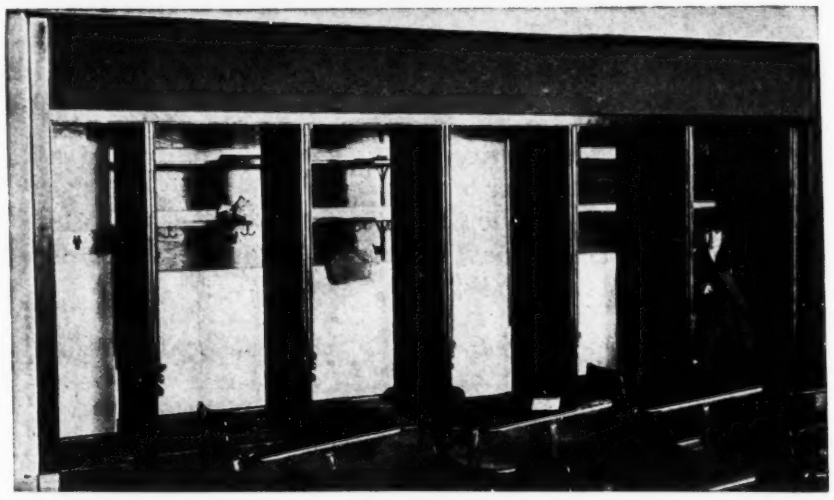

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Marketing and Housework Manual

By Agnes Donham. Cloth, 294 pages. Price, $2. Little, Brown and Company, Boston, Mass.

Planned for the use of teachers of household management in high-school and college classes, this manual outlines, in an intensely interesting manner, all the essentials a housewife should know from planning and preparing a menu for a variety of luncheons, to general cleaning, sweeping and dusting, and methods of ridding the home of household pests.

Growing Straight

By Maud S. Williams. Cloth, 147 pages. Price, $2. A. S. Barnes and Company, New York City.

This book presents a system of body building and corrective physical training for girls and women, based on principles used by the historic tribes of American Indians. Good posture in sitting and walking are emphasized especially in the exercises.

A Guide for Practice in Grading With the American Handwriting Scale

By Paul V. West. Paper, 8 pages. The A. N. Palmer Co., New York, N. Y.

The present pamphlet represents the first supplementary research material to come out of the American Handwriting Scale. It was prepared by Dr. West, a leading handwriting specialist, for the benefit of teachers who wish to determine objectively their ability and to perfect themselves in grading with confidence and facility.

In addition to the guide, the practice material includes 40 handwriting samples for each grade, keys to standard ratings on the 7-and-15-step scales, and 14 record blanks for recording practice scores.

The material is a distinct contribution to the science of handwriting measurement and to teacher-training methods. It will be of special help to classroom teachers, special teachers, and supervisors of handwriting, to those who conduct experimental investigations, and to those who make a special study of methods in handwriting instruction.

The Teaching of Mathematics in Secondary Schools

By Ernest R. Breslich. Cloth, 240 pages. Price, $2. The University of Chicago Press, Chicago, Ill.

This book answers the broad questions, How shall mathematics be taught in secondary schools? Why shall it be taught? In brief, the book is a statement of the best present knowledge of the technique of teaching algebra, geometry, and trigonometry, with considerable emphasis on specific method, devices, motivation and interest, improving study habits, equipment, lesson organization, tests and testing, and tendencies in the organization of courses. The chapter on aims is suggestive, especially in the practical recommendations for subject and unit objectives. Under the head of general educational objectives, the author seems to hold to the more limited recent statements of secondary education purposes rather than the broader and more desirable activities of adult life and a complete philosophy of life and living. The book is fully provided with bibliographies.

Puppet Plays for Children

By Florence McClurg Everson. Cloth, 118 pages. Published by Beckley-Cardy Company, Chicago.

Here are five splendid marionette plays written by children. It is explained that they were first written in prose and then transformed into rime. The author of the book has edited them into most presentable form.

While the plays are certain to captivate a child audience, the author tells all about the mechanism that must be employed in staging puppet plays. There is the building of a stage, the making of dolls, and the manipulation of the figures behind the scenes. The characters include Cinderellas, brownies, bears, Jack and the Beanstalk and the like. The book is illustrated with photographs rendered in halftone engravings.

Modern-School Arithmetic

Book three. By J. R. Clark, A. S. Otis, and Caroline Hatton. Cloth, 402 pages. Price, 88 cents. The World Book Co., Yonkers, N. Y.

This book for the ninth grade is one of a series of arithmetic textbooks which is founded upon the seven cardinal principles of child interests, guidance, graduated presentation, abundance of material, diagnosis, measurement of progress, and provision for individual differences.

The book is worthy of careful consideration by teachers seeking to improve the teaching of arithmetic, and it carries out fully the promise of distinguished authorship and painstaking care in its preparation. The authors have enriched the content so that it meets the needs of the brighter groups and provides teachers with an ample amount of well-balanced teaching material. It reviews such topics as the fundamentals of arithmetic, and fractions and takes up ratio and graphs, business practice, measurement, circle graphs, and review problems.

Defoe's Robinson Crusoe

Edited by H. C. Hutchins. Cloth, xxviii + 298 pages. Price, 80 cents. The Macmillan Company, New York, N. Y.

The editor has rendered two distinct services in this edition of the delightful old classic: (1) He has gone back to the first edition and made only such changes in punctuation, spelling, etc., as seem absolutely necessary for present-day readers. Otherwise he has carefully reproduced the delightful peculiarities of the original text. (2) In the introduction he has briefly sketched the life of the author against the political and literary background of his times—a necessary procedure for the full enjoyment of the story.

The Single Salary Schedule

By Lyle L. Morris. Cloth, 80 pages. Price, $1.50. Bureau of Publications, Teachers' College, Columbia University, New York City.

Much has been said and written in favor of, and against, the single salary schedule as applied

(Concluded on Page 129)

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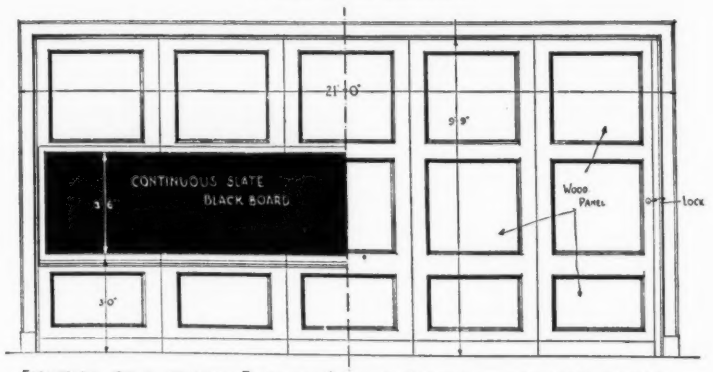

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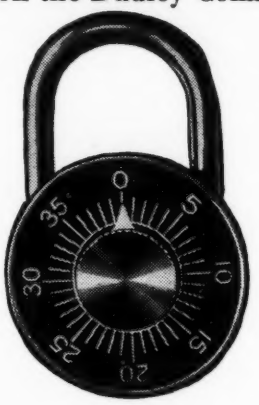

B-2B

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For your lockers, whether in the corridors, gymnasium or other school departments, you will want the Dudley Combination Padlock, the standard school locker lock of America.

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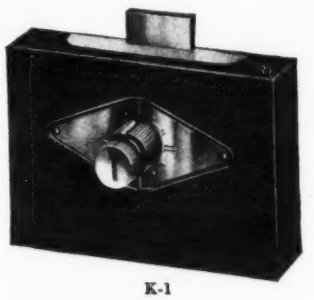

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Learn how school officials the country over are solving the noise problem. Write for free booklet and list of prominent users.

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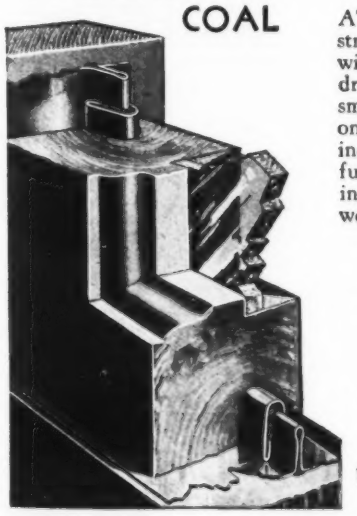

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Over 2500 now in use

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coast the pupils away from the center of the building to the outside air without the least danger from smoke, gases, fire, or panic.

The Potter Tubular Slide Fire Escape has a service record that is approved by the Underwriters' Laboratories.

Write for details, specifications and list of schools using Potter safety methods

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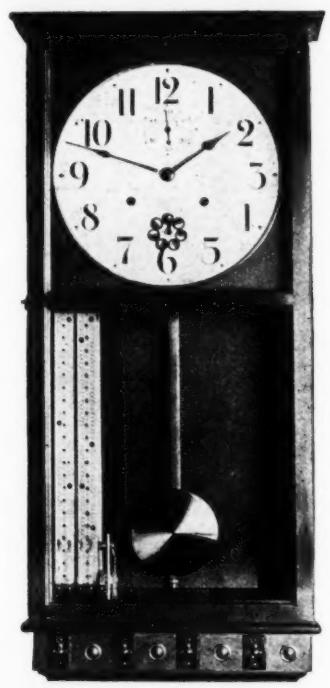

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Install it Yourself
It requires no servicing

Mr. Superintendent:
Figure it out for yourself

Can you afford to watch the clock and push a button twenty times a day to call and dismiss ten classes when five cents per day for ten years would more than pay for a

MURDA
Program Clock

Would you contract to watch the clock for forty years for $150?

Order one today.

You have no idea how easily it may be installed. Nowhere else will the expenditure of $150.00 give a like amount of satisfaction.

8:14
8:24
8:48
8:52
9:32
9:36
10:16
10:20
11:00
11:04
11:44
11:48
Noon
12:52
12:56
1:36
1:40
2:20
2:24
3:04

Built upon an 80 beat Seth Thomas movement, the Murda Program Clock is a simple, dependable device which will operate automatically all the bells in the building on one to four separate circuits, silencing them at night and on Saturday and Sunday. No expert servicing is ever required on its simple mechanism. Initial expense is low and cost of upkeep is negligible.

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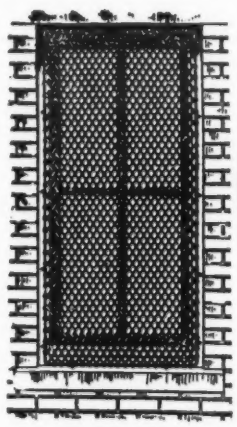

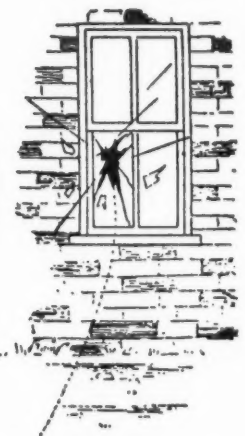

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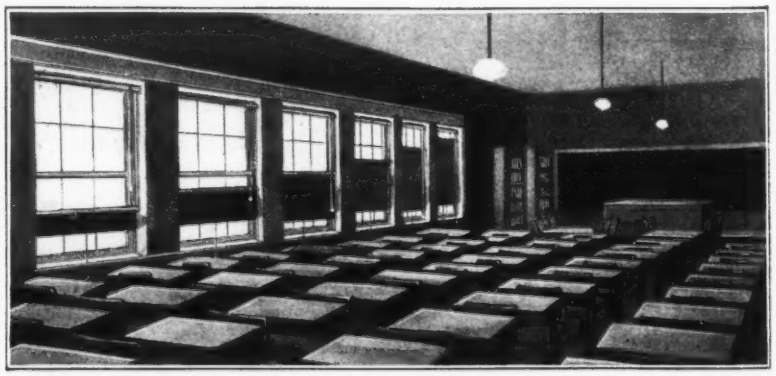

Shades carried by the EVELETH ADJUSTERS afford a hitherto unknown degree of:

comfort to the child

Because of perfect adjustment enabling him to receive benefit of properly regulated light without danger of eye-strain.

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Because Ev-el-eth Adjusters operate so easily and quietly.

Because they add to the tidy appearance of the room. The adjusting cord, although very strong, is light in weight and is placed inconspicuously at one side.

Because shade is held in perfectly level position at any desired height. The annoyance caused by shades tilting at various angles is unknown where Ev-el-eth *level* Adjusters are properly installed.

satisfaction to the School Board and Purchasing Committee

Because of moderate first cost.

Because of carefully selected materials and sturdy construction assuring a long term of service.

Because of the automatic hook which does away with the anchoring of cord to wall or casing.

Further information will be sent upon request.

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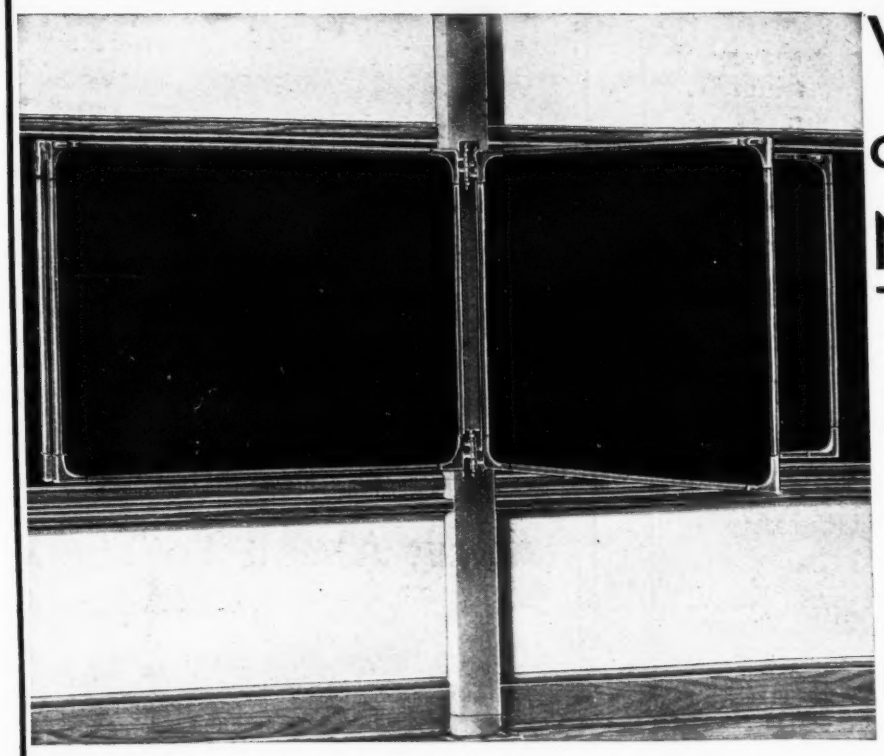

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The Progressive School Equipment Mfg. Co.

Manufacturers Exchange Bldg. Kansas City, Missouri

(Concluded from Page 126)

to the professional workers in the public schools. The literature on the subject has been fragmentary and scattered throughout educational periodicals and reports.

The author has uncovered the several viewpoints and arguments bearing on the subject, assembled them in logical order, subjected them to reasonable analysis, and given his conclusions upon them. Thus, he has cleared up some misconceptions and erroneous impressions. He presents the arguments which have this far been advanced in favor of, and against, the single salary schedule. His comment upon them is that, while they were made in good faith, they lack on the whole in scientific verification.

Adventures in Storyland

By Frances L. Taylor. Cloth, 191 pages. Price, 72 cents. Published by Beckley-Cardy Company, Chicago, Ill.

The delightful book for second grades deals with child pleasures and child obligations. The very first chapter is headed "let's be careful," and points out the traffic dangers of the day. Original stories are told throughout the book, dealing with novel experiences, child adventure, and the pet animals. Part of the text is in rime and part in prose—all in harmony with the general theme. The vocabulary is more extensive than usual for the second grade, but is quite within the limitations of the reader's ability. Illustrations are in color and are exceptionally fine.

Our Country, Past and Present

By Wm. L. Nida and W. L. Webb. Cloth, quarto, 393 pages. Price, $1.96. Scott, Foresman & Co., Chicago, Ill.

Eminent educators have frequently called attention to the need for interrelating the teaching of geography and history in the grades. They have observed the tendency of teaching geography on a purely factual basis so that it becomes largely a recital of boundaries of states, location of rivers and towns, land areas, and statistics of population, products, and natural resources. They have noted that the teaching of history often is limited to a succession of dates, names, and battles, with only slender interpretation of facts. Both history and geography teachers overlook the immediate dependence of the discoveries, the exploration, and the settlement of the colonies upon geographic conditions. In the Revolutionary War, in the War of 1812, in the Civil War the geographic influences were important and oftentimes conclusive in affecting the success of American arms. And there has been in the entire story of the struggle for control, in the settlement of the West and the Southwest, and in the growth of the wealth and population of cities and states a strong dependence on simple facts of physical geography.

The present book has the appearance and size of a geography, and weaves together into one coherent whole, a well-stated presentation of the physical, political, and economic geography of the United States, with a brief history from the earliest settlements to the end of the Indian wars in the Northwest. The emphasis quite naturally is upon geographic facts, and even the recital of the historic events has the geographic slant. The combination is most appealing, in that there is a constant reference to the struggles, triumphs, and failures of pioneers, and builders, and of people of the present day. Ample maps, reference tables, and illustrations makes the book quite complete.

Community Health

By Wood Hutchinson. Cloth, 336 pages. Price, 88 cents. Houghton Mifflin Company, Boston.

Dr. Hutchinson has been wise to make an entirely new book of his volume on *Community Health*. Our ideas on the importance and influence of environment on health have undergone radical changes within the past ten years, and the new standards of cleanliness, the machinery for preserving health, and the entire technique of keeping homes, schools, streets, etc., in health-promoting condition have risen to a new and higher plane. The book is well-balanced, well-adapted in language to the fifth and sixth grades, and well-illustrated.

The Illinois Campus Plan

By Leon D. Tilton and T. E. O'Donnell. Cloth, 245 pages. Price, $5. University of Illinois Press, Urbana, Ill.

This attractive volume outlines the history, the present status, and the accepted proposals for expansion of the buildings and grounds of the University of Illinois. In the comparatively brief span from 1867 to 1930, the University has grown from a single building, to an assemblage of nearly 100 structures, located on a campus comprising 1,546 acres.

The story does not, of course, take into account the farms, forest lands, and other property of the University, but it limits itself to the main campus in Champaign–Urbana. In reading the story, one is struck by the fact that while the array of University administrators and architects who have worked on the *Illinois Campus Plan* has represented some of the most capable and farseeing men, the rapid growth of the University, and the rapid change in economic and social conditions and the growing educational ideal have made it necessary to radically revise the plan at least every decade. And the end is not yet.

The book is the strongest kind of an argument for continuity in institutional planning, and for continuity of service on the part both of competent University executives and high-grade architects. The book is one which should be in the working library of every professional architect who has school problems to solve.

AN AUTHOR-PUBLISHER HONORED

John R. Gregg, publisher and originator of the Gregg shorthand system, the most widely taught system in the United States, was honored with the degree of C. D. by the Boston University. The degree was conferred on the occasion of the university's 57th commencement. The *Boston Evening Transcript* in reporting the event shows Mr. Gregg in cap and gown together with a group of distinguished educators. Those who are familiar with his contribution to the field of commercial training will be gratified and pleased to learn of the distinction awarded him.

♦ Mr. George L. Garton has been reëlected as secretary of the school board at Des Moines, Iowa.

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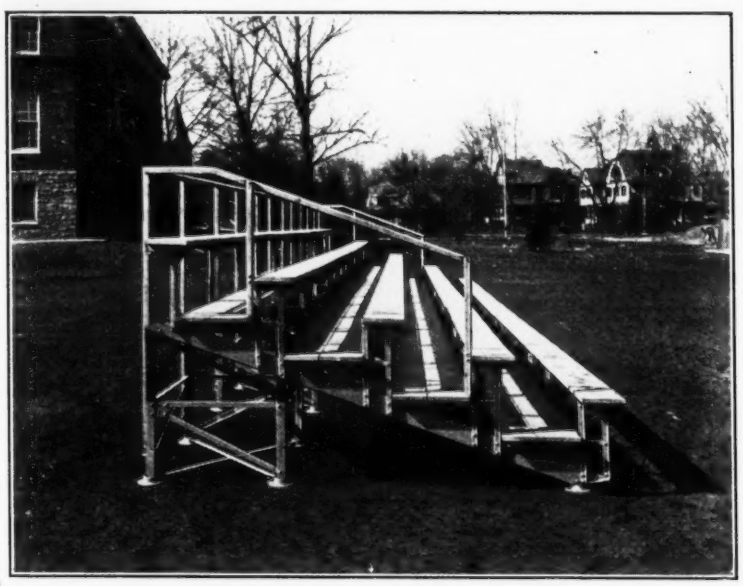

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CHICAGO CORRESPONDENCE

The world knows that Chicago has been in financial difficulties, but Chicago has not been "broke." It has been embarrassing for such a rich city to be without ready cash, but the very fact that the departments of local city government have been able to function for over two years without the payment of taxes, is evident of the wealth and credit of Chicago. Apparently major financial troubles are now a thing of the past. The 1928 taxes are being paid. The special session of the legislature has passed 31 financial bills designed to relieve the local governments of Cook county.

Two wholesome results of the financial distress of the past two months are: (1) As a result of the reassessment, ten billion dollars' worth of property is assessed according to a uniform procedure, in which the objective measurements of experts, rather than the subjective estimates of politicians, has determined valuations. (2) The pay-as-you-go plan (the schools have no bonded indebtedness) of financing school-building construction with a tax levy which raises about $19,000,000 yearly has been the envy of school administrators in other large cities. Now the Chicago schools have another enviable feature of sound financing, namely, a working cash fund.

Under the Illinois school law, Chicago maintains its school system from January 1 to December 31 for any given year, but the school revenues for that year are not available until taxes are paid about May 1 of the following year. Thus, unless surpluses are available from previous years, the schools are forced to go to the banks and borrow the money to keep the schools open, and they issue tax-anticipation warrants as security. These warrants now require six per cent interest payment, and they must be redeemed out of the first taxes collected.

Under the provisions of a school bill passed at the special session of the legislature, a new revolving fund is created and an annual tax levy of ten cents per $100 of assessed valuation is set up to build it up. In order to start the fund off with a good-size nest egg, the law permits the issuance of $25,000,000 of bonds, the principal and interest of which are to be retired by another special tax levy.

The purpose of this fund is to provide ready cash as needed by the schools. The bill states, "such fund and the moneys therein shall not be regarded as current assets available for appropriation and shall not be appropriated by the board of education in the annual school budget, but in order to provide moneys with which to meet ordinary and necessary disbursements for salaries and other educational purposes may be transferred in whole or in part, to the educational-purposes fund of the board of education, and so disbursed therefrom in anticipation of the collection of any taxes lawfully levied for educational purposes, and in anticipation of the receipt of moneys to be derived from the common-school fund of the state and from state appropriations."

A board of education resolution must state the exact tax collections from which the working cash fund is to be reimbursed, and reimbursement shall be made immediately when those taxes are paid. If there be any deficiency (for example, due to lowered assessed valuations) the next incoming revenues to the board of education's educational fund, no matter what the source, shall be used to reimburse the working cash fund. The framers of the law were particularly anxious that the working cash-fund moneys should not be siphoned out.

Severe penalties are set up for school-board members, or for officers or employees of the board of education who might violate the safeguarding provisions; for example, a $10,000 fine and compulsory forfeiture of position or office, besides liability for civil damages.

Critics of the working cash fund have said that the school board is entering the banking business. Friends of the working cash fund say that the law which formerly forced the schools into the laps of the bankers and compelled the payment of millions of dollars yearly to the banks has simply been changed to permit the school board financially to administer its own estate, its own affairs. Instead of borrowing from the banks at 6 per cent interest, the school board can borrow from the working cash fund without the payment of any interest. In fact, unused moneys in the working cash fund will be on deposit drawing interest. During 1930 the Chicago Public Schools' educational fund will have to pay $4,250,000 to the banks as interest on loans, i. e., $9 per pupil. After the working cash fund gets fully established, much of this wasteful interest paying will cease.

The author of this working cash-fund provision, Mr. Harris Keeler, director of the Chicago Bureau of Public Efficiency, has made a real contribution to public finance. This novel departure from traditional public-finance procedure will have to stand the test of constitutionality from critics who will declare that it is governmental invasion of the banking business, but if it is approved by the supreme court, other cities will surely want to study the possibilities of such a fund for their school and corporate departments.

NEWS OF OFFICIALS

♦ Mr. R. H. Williams, secretary of the school board of Council Bluffs, Iowa, has been reëlected for another year. Mr. L. Leutzinger, superintendent of school buildings, was also reëlected.

♦ Dr. B. R. Shurly has been elected president of the board of education at Detroit, Mich. Mr A. D. Jamieson was elected vice-president.

♦ Mr. H. C. Roberts has been reëlected secretary of the board and business manager at Sioux City, Iowa.

♦ Miss Helen Ahlschlager has been reëlected as secretary of the school board of Muscatine, Iowa.

♦ Mr. P. J. Nicks has been reëlected as secretary of the school board at Dubuque, Iowa.

♦ Mr. John Klimo, of Mount Vernon, Iowa, has been reëlected president of the school board for the next year. Mr. Klimo succeeds the late Thomas Rogers.

♦ Mr. R. F. Agar has been reëlected as secretary of the school board at Colfax, Iowa.

♦ Mr. John W. Gross, Jr., has been elected as president of the school board of Janesville, Wis., succeeding F. C. Grant.

♦ Mr. John E. Baumgartner has been reëlected as secretary of the school board at Davenport, Iowa.

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THERE is a very real economy in installing Plymouth School Bus Bodies on your Chassis. The first cost is unusually reasonable and, because of the superior design and construction of these better built school buses, they last longer — look better — provide greater riding comfort and safety features.

There is a Plymouth School Bus Body designed special for the type of chassis you now have or will buy this Fall. It will pay you to find out about it. Your local motor car dealer can tell you, or if you prefer, write us direct. We will gladly send you our valuable booklet "Saving Money on School Bus Transportation." Send for your copy today. Act Now on your school bus needs to insure delivery for Fall use.

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"Famous as Plymouth Rock"
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Used in practically every state in the Union, American Portable Schools provide regulation size classrooms with proper lighting and all comfort. They are easy to heat and well ventilated.

New double wall construction consists of siding, insulating paper, sheathing on outside of studding and Insulite (5 times the insulating value of plaster) on inside. Austral windows. Double exits. Double floors.

Write for catalog.

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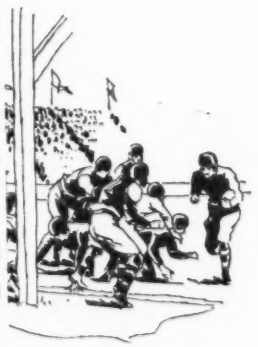
MAKE ATHLETICS SELF-SUPPORTING

SCHOOL athletics need not be a "red ink" item in the school budget. They can be made self-supporting.

When the athletic field is Anchor Fenced, gate receipts will more than cover the cost of coaches' salaries, uniforms and equipment.

The income from a single season usually pays for the entire cost of an Anchor Athletic Field installation, and an Anchor Fence practically requires no maintenance expense.

Just call the nearest Anchor Office and have an Anchor Representative submit a plan and cost estimate.



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THE AUTOMATIC LOCKING "SUPER SPECIAL" KEYLESS PADLOCK

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A rugged, durable, economical padlock, practically fool-proof—*cannot be left unlocked* because the combination is completely thrown off when the shackle is snapped shut.

"Super Specials" are the result of extended specialized experience and are made up special for installations, on individualized combinations, to meet requirements. Liberal guarantee and permanent Supplementary Record of Combinations are part of our service.

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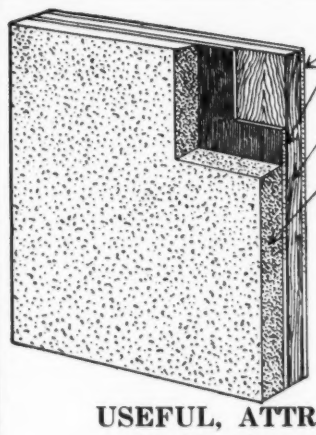

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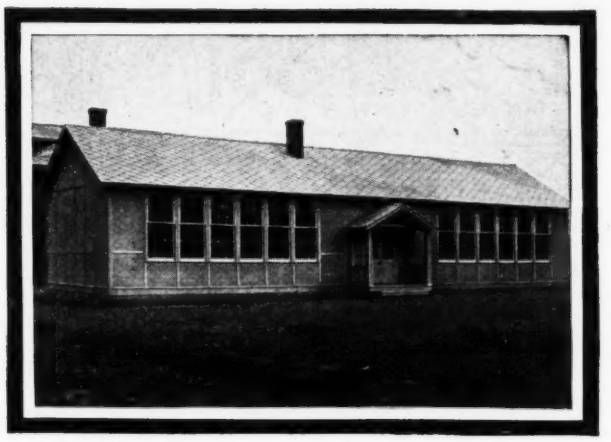

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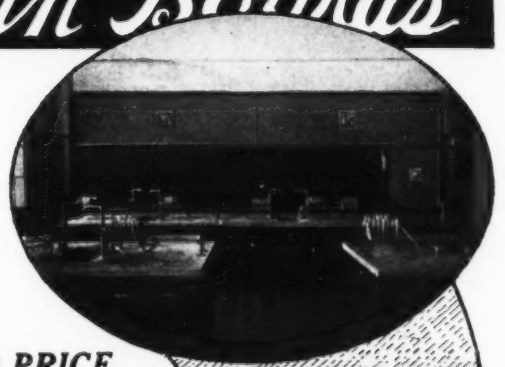

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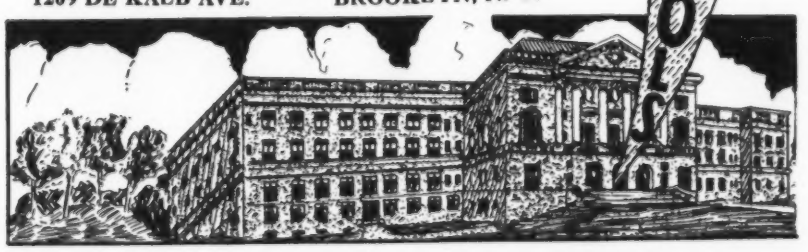

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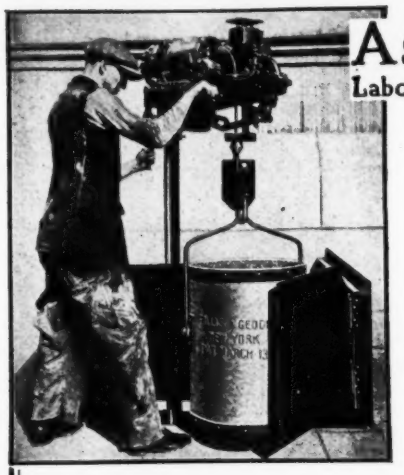

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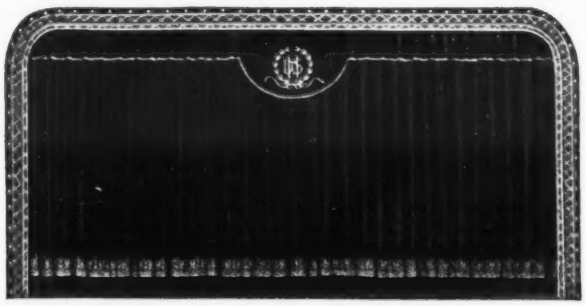

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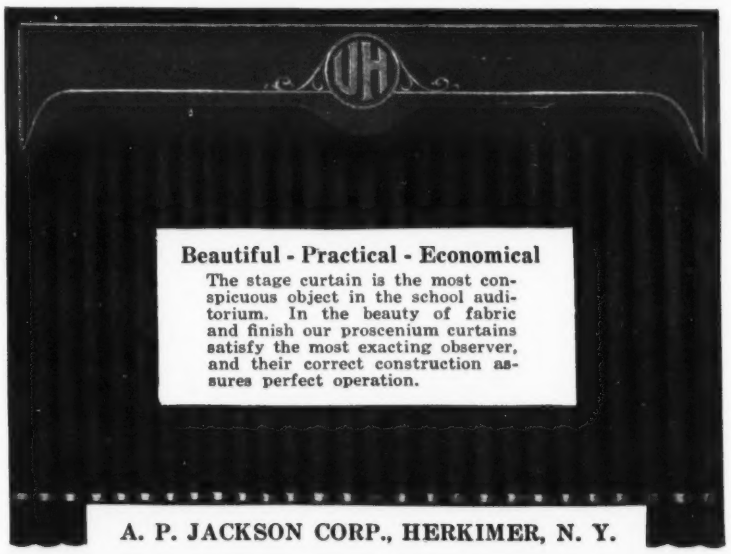
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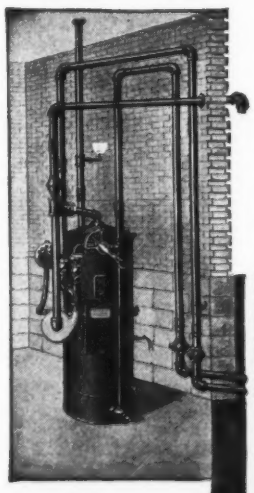

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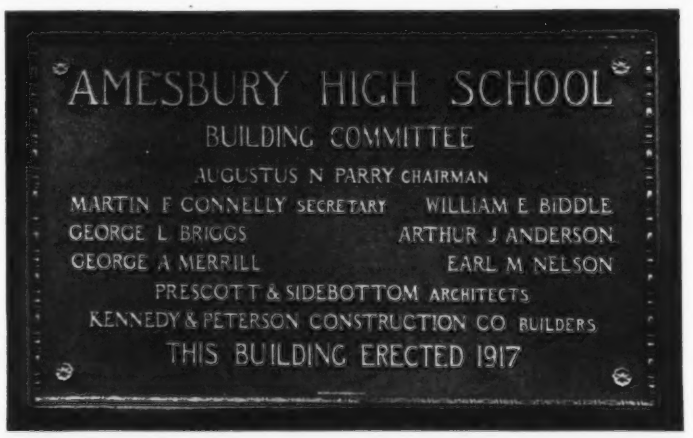

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Beckley-Cardy Company
Eagle Soap Corporation
Midland Chemical Laboratories
Oakite Products, Inc.
Rowles Co., E. W. A.
Weber Costello Company

BLACKBOARDS—MANUFACTURED
Beckley-Cardy Company
Flanagan Company, A.
N. Y. Silicate Book Slate Co.
Rowles Co., E. W. A.
Standard Blackboard Company
Valleyco Company, The
Weber Costello Company

BLACKBOARDS—SLATE
Flanagan Company, A.
Natural Slate Blackboard Co.
Rowles Co., E. W. A.

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Minter Homes Corporation
Pittsburgh-Des Moines Steel Co.
Universal Equipment Co.
Wayne Iron Works

BOILERS
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Kewanee Boiler Company

BOILER COMPOUNDS
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Midland Chemical Laboratories

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Remington-Rand Business Service, Inc.
Welch Manufacturing Company, W. M.

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Iroquois Publishing Company

BOOKKEEPING MACHINES
Remington-Rand Business Service, Inc.

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Beckley-Cardy Company
Bruce Publishing Co.
Flanagan Company, A.
Gregg Publishing Company
Houghton, Mifflin Co.
Iroquois Publishing Company
Laidlaw Brothers
Lippincott Company, J. B.
Merriam Co., G. & C.
Union Library Association, The
Winston Co., The John C.

BOX LOCKERS (STEEL)
Durabilt Steel Locker Co.

BRONZE TABLETS
Russell & Sons Co., Albert

BRONZE TABLETS, SIGNS, LETTERS
Russell & Sons Co., Albert

BRUSHES
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Midland Chemical Laboratories
Milwaukee Dustless Brush Co.

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Celotex Company, The
Common Brick Mfrs. Ass'n, The
Detroit Steel Products Company
Johns-Manville Corp.
North Western Steel Products Company
Sonneborn Sons, L.
Structural Slate Company
Truscon Steel Company

BULLETIN BOARDS
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Paddock Cork Co.
Rowles Co., E. W. A.
Welch Mfg. Co., W. M.
Weber Costello Company

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Plymouth Body Works

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Nichols-Lintern Co., The

BUSES
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White Motor Car Co.

CABINETS
Park, Winton & True Co.

CABINETS, BLUE PRINT (STEEL)
Angle Steel Stool Co.

CABINETS (STORAGE) (STEEL)
Angle Steel Stool Company
Durabilt Steel Locker Co.

CABINETS, TOOL (STEEL)
Angle Steel Stool Co.

CABINETS (WARDROBE) (STEEL)
Durabilt Steel Locker Co.

CAFETERIA EQUIPMENT
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Pick-Barth Co., Inc., Albert
Sani Products Co., The
Standard Gas Equipment Corp.
Van Range Co., John
Welch Mfg. Co., W. M.

CANVAS GOODS
Tucker Duck & Rubber Co.

CHAIRS
Angle Steel Stool Company
Algoma Wood Products Co.
Beckley-Cardy Company
Clarin Manufacturing Co.
Cornell Table Company, Inc.
Flanagan Company, A.
Great Northern Chair Co., The
Maple City Stamping Company
Peabody Seating Co.
Royal Metal Mfg. Co.
Stakmore Company
Standard School Equipment Co.
Tucker Duck & Rubber Co.
Wark-Beacon Steel Furniture Co.
Welch Mfg. Co., W. M.

CHAIRS—FOLDING
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Clarin Mfg. Company
Flanagan Company, A.
Mahoney Chair Company
Maple City Stamping Company
Peabody Seating Co.
Rowles Co., E. W. A.
Royal Metal Mfg. Co.
Rastetter & Sons Co., Louis
Standard Mfg. Company
Tucker Duck & Rubber Co.
Vitek Mfg. Co.
Welch Mfg. Co., W. M.

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Beckley-Cardy Company
Binney & Smith Co.
Flanagan Company, A.
Rowles Co., E. W. A.
Weber Costello Company
Welch Mfg. Co., W. M.

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Weber Costello Co.

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Eastman Teaching Films, Inc.

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Hillyard Chemical Company
Midland Chemical Laboratories
Oakite Products, Inc.

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Murphy-Davis Signal Co.
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Flanagan Company, A.
N. Y. Silicate Book Slate Co.
Weber Costello Company

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Dudley Lock Corporation, The
Greene Tweed Corp.
Miller Keyless Lock Co., J. B.

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CORK TILE AND CORK CARPET
Congoleum-Nairn, Inc.

COOKING APPARATUS
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Van Range Co., John

CRAYONS
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Beckley-Cardy Company
Binney & Smith Co.
Flanagan Company, A.
National Crayon Co.
Rowles Co., E. W. A.
Weber Costello Company
Welch Mfg. Co., W. M.

CRAYON COMPASSES
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Weber Costello Company

CRAYON TROUGHS
Dudfield Manufacturing Company
Weber Costello Company

DAMPROOFING
Sonneborn Sons, L.
Truscon Steel Company
Vortex Mfg. Co.

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Celotex Company, The

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Beckley-Cardy Company
Flanagan Company, A.
Imperial Desk Company
Rowles Co., E. W. A.
Welch Mfg. Co., W. M.

DESKS, TYPEWRITER (STEEL)
Angle Steel Stool Co.

DIPLOMAS
Beckley-Cardy Company
Welch Mfg. Co., W. M.

DISHWASHING COMPOUNDS
Eagle Soap Corporation
Midland Chemical Laboratories
Oakite Products, Inc.

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Eagle Soap Corporation
Hillyard Chemical Company
Midland Chemical Laboratories

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Dougherty & Sons, Inc., W. F.
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Kimball Company, W. W.
Peterson & Co., Leonard
Pick-Barth Co., Inc., Albert
Sheldon & Co., E. H.
Standard Gas Equipment Corp.
Van Range Co., John
Welch Mfg. Co., W. M.

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Richards-Wilcox Mfg. Co.
Roddis Lumber & Veneer Co.

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Truscon Steel Company

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Bradley Company, Milton
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Kewaunee Mfg. Company
Rowles Co., E. W. A.
Sheldon & Co., E. H.
Vitek Manufacturing Co., Inc.
Welch Mfg. Co., W. M.

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Crane Co.
Rundle-Spence Mfg. Company
Taylor Company, Halsey W.

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Ditto, Inc.
Flanagan Company, A.

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ELECTRICAL REFRIGERATION
General Electric Company

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Rowles Co., E. W. A.
Weber Costello Co.

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Cyclone Fence Co.
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Standard Electric Time Company

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Home Insurance Company, The

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Bielfeld & Company, Otto
Rowles Co., E. W. A.

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Eagle Soap Corporation
Hild Floor Machine Co.
Midland Chemical Laboratories
Wis-Co-Lac Co., The

FLOORING
Bruce Company, The E. L.
Carter Bloxonend Flooring Co.
Congoleum-Nairn, Inc.
Truscon Steel Company

FLOORING COMPOSITION
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Congoleum-Nairn, Inc.

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Hild Floor Machine Co.
Finnell System, Inc.

FLOORS, STEEL FIREPROOF
Truscon Steel Company

FLOOR SURFACING MACHINES
American Floor Surfacing Machine Co.

FLOOR TILES
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Congoleum-Nairn, Inc.
Norton Company

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Continental Chemical Corporation
Eagle Soap Corporation
Midland Chemical Laboratories
Sonneborn Sons, L.

FLOOR TREATING COMPOUNDS
Continental Chemical Corporation

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Crane Co.

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Great Northern Chair Co., The
Mahoney Chair Company
Maple City Stamping Company
Peabody Seating Co.
Rastetter & Sons Co., Louis
Royal Metal Mfg. Co.
Stakmore Company
Standard Mfg. Company
Tucker Duck & Rubber Co.
Vitek Manufacturing Co.
Welch Mfg. Co., W. M.

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Richards-Wilcox Mfg. Co.
Horn Folding Partition Co.,
Park, Winton & True Co.
Wilson Corp., Jas. G.

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American Seating Co.
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Beckley-Cardy Company
Columbia School Supply Company
Cornell Table Company, Inc.
Flanagan Company, A.
Great Northern Chair Co., The
Heywood-Wakefield Co.
Imperial Desk Company
Kewaunee Mfg. Company
Kimball Company, W. W.
Kundtz Company, The Theo.
Maple City Stamping Company
National School Equipment Co.
Peabody Seating Co.
Remington-Rand Business Service, Inc.
Rowles Co., E. W. A.
Royal Metal Mfg. Co.
Sjostrom Co., John E.
Stakmore Company
Standard School Equipment Co.
Steel Furniture Company
Wark-Beacon Steel Furniture Co.
Welch Mfg. Co., W. M.

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Wittliff Furniture Brace Co.

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Matthews Gas Machine Co.

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Manufacturers Glass Company

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(Sani-Dri Division)

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Heggie Simplex Boiler Company
Nelson Corp., The Herman
Peerless Unit Ventilation Co., Inc
R. F. Sturtevant Co

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Sanford Mfg. Co.

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Squires Inkwell Company
Tannewitz Works, The
U. S. Inkwell Company

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Eagle Soap Corporation
Hild Floor Machine Co.
Midland Chemical Laboratories
Milwaukee Dustless Brush Co.
Oakite Products, Inc.
Pick-Barth Co., Inc., Albert
Sonneborn Sons, L.
Welch Mfg. Co., W. M.

KEY CONTROL SYSTEM
Thayer Tel-Kee Corporation

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Dudley Lock Corporation
Greene Tweed Corporation
Miller Keyless Lock Co., J. B.

LABORATORY APPARATUS
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International Business Machines Corp.
Leitz, Inc., E.
Standard Electric Time Company
Welch Mfg. Co., W. M.

LABORATORY FURNITURE
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Columbia School Supply Company
Kewaunee Mfg. Company
Kimball Company, W. W.
Peterson & Co., Leonard
Sheldon & Company, E. H.
Welch Mfg. Co., W. M.

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Dayton Safety Ladder Co., The

LANTERN SLIDES
Keystone View Company
Welch Mfg. Co., W. M.

LAWN MOWERS
Coldwell Lawn Mower Company

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Gaylord Brothers
Kewaunee Mfg. Company
Kimball Company, W. W.
Peterson & Company, Leonard
Remington-Rand Business Service, Inc.
Sjostrom Co., John E.
Welch Mfg. Co., W. M.

LIBRARY SUPPLIES
Demco Library Supplies

LIGHTING FIXTURES
Belson Mfg. Company
Demco Library Supplies
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Graybar Electric Co., Inc.
Holophane Company, Inc.

LINOLEUMS
Congoleum-Nairn, Inc.

LIQUID FLOOR HARDENER
Sonneborn Sons, L.

LIQUID SOAPS
Continental Chemical Corporation
Eagle Soap Corporation
Midland Chemical Laboratories

LOCKERS—STEEL
All-Steel-Equip Co.
Berger Manufacturing Company
Durabilt Steel Locker Co.
Lyon Metal Products, Inc.
Medart Mfg. Co., Fred
Narragansett Machine Company
North Western Steel Products Co.

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Miller Keyless Lock Co., J. B.

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(Continued from Page 138)

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Nystrom & Co., A. J.
Weber Costello Company
Welch Mfg. Co., W. M.

MEMORIAL TABLETS
Russell & Sons Co., Albert

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Dudfield Manufacturing Company
Truscon Steel Company

METAL LATH
Berger Manufacturing Company
North Western Steel Products Company
Truscon Steel Company

MICROSCOPES
Bausch & Lomb Optical Co.
Leitz, Inc., E.
Spencer Lens Company
Welch Mfg. Co., W. M.

MIMEOGRAPHS
Dick Co., A. B.

MODELING CLAY
American Crayon Company

MOTION PICTURE MACHINES
Eastman Teaching Films, Inc.
National Theatre Supply Co.

PAINTS
American Crayon Company
Sonneborn Sons, L.
U. S. Gutta Percha Paint Co.
Vortex Mfg. Co.

PAINT—TECHNICAL
Truscon Steel Company

PAINT SPRAYING EQUIPMENT
DeVilbiss Mfg. Co., The
Vortex Mfg. Co.

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Steffens-Amberg Company

PASTE
Vonnegut Hardware Company

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American Crayon Company
Arabol Mfg. Company
Beckley-Cardy Company
Flanagan Company, A.
Keller Ink Co., Robert

PENCILS
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PIANOS
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Chicago Gymnasium Equipment Co.
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Mitchell Manufacturing Co.
Narragansett Machine Company
Potter Manufacturing Corp.

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Clay Equipment Corp.
Page Fence Association
Stewart Iron Works Co., The

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Clow & Sons, James B.
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Hoffmann & Billings Mfg. Co.
Rundle-Spence Mfg. Company
Vogel Company, Joseph A.

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Finnell System, Inc.
Hild Floor Machine Co.

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Minter Homes Corporation
Pittsburgh-Des Moines Steel Co.
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Clarke Sanding Machine Company

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Minter Homes Corporation

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National Theatre Supply Co.

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Westinghouse Electric & Mfg. Co.

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Truscon Steel Company

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American Abrasive Metals Co.

SANDERS
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Clarke Sanding Machine Company
Hild Floor Machine Co.

SASH OPERATING DEVICES, STEEL
Detroit Steel Products Company
Truscon Steel Company

SASH, VENTILATING
Detroit Steel Products Company

SCIENTIFIC APPARATUS
Central Scientific Co.
Rowles Co., E. W. A.
Standard Electric Time Company
Welch Mfg. Co., W. M.

SCREENS—PICTURE
Eastman Teaching Films, Inc.
National Theatre Supply Co.
Trans-Lux Daylight Picture Screen Corp.

SEWAGE EJECTORS
Nash Engineering Co.

SEWING MACHINES
Singer Sewing Machine Co.

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Eveleth Mfg. Co.

SHOE LOCKERS (STEEL)
Durabilt Steel Locker Co.

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Crane Co.
Hoffmann & Billings Mfg. Co.

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Flanagan Company, A.
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Weber Costello Company

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Vortex Mfg. Co.

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Belson Mfg. Co.
Jackson Corp., A. P.
Novelty Scenic Studios
Standard Decorating Co.
Tiffin Scenic Studios
Twin City Scenic Company
Universal Scenic Studios, Inc.
Weiss & Sons, I.

STAINS
Johnson & Son, S. C.

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Norton Company
Sanymetal Products Company

STATIONERY CABINETS (STEEL)
Durabilt Steel Locker Co.

STEEL JOISTS
Truscon Steel Company

STORAGE CABINETS (STEEL)
Angle Steel Stool Company
Durabilt Steel Locker Co.

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All-Steel-Equip Co.
Berger Manufacturing Co.
Durabilt Steel Locker Co.
Lyon Metal Products Co.
Medart Mfg. Co., Fred
Narragansett Machine Co.
North Western Steel Products Co.

STEEL STORAGE CABINETS
Angle Steel Stool Company
Berger Mfg. Co.
Durabilt Steel Locker Co.
Lyon Metal Products, Inc.
Medart Mfg. Co., Fred
North Western Steel Products Co.

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North Western Steel Products Company
Truscon Steel Company

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Angle Steel Stool Co.

STOOLS, LABORATORY (STEEL)
Angle Steel Stool Co.

STOOLS—STEEL ADJUSTABLE
Angle Steel Stool Company
Vitek Mfg. Co.

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Kimball Company, W. W.
Mutschler Bros. Company
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Welch Mfg. Co., W. M.

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Russell & Sons Co., Albert

TALKING MACHINES
Radio-Victor Corporation

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Natl. Association of Teacher Agencies
Teacher Agencies Directory

TEACHERS' CABINETS (STEEL)
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TECHNICAL PAINTS
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TELEPHONE SYSTEMS
Automatic Electric Company
Graybar Electric Co., Inc.
International Business Machines Corp.
North Electric Mfg. Company, The
Standard Electric Time Company

TEMPERATURE REGULATION
Johnson Service Company

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Brown Company

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Sanymetal Products Company
Structural Slate Company
Weis Mfg. Co., Henry

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Smith & Corona Typewriters Inc., L C
Underwood Typewriter Company

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Sturtevant Co., B. F.

VACUUM PUMPS
Nash Engineering Company

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Crane Company

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Wis-Co-Lac Co., The

VENETIAN BLINDS
Burlington Venetian Blind Co.

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Nelson Corp., The Herman
Peerless Unit Vent. Co., Inc.
Sturtevant Company, B. F.

VENTILATORS
Sturtevant Co., B. F.

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Kimball Company, W. W.
Richards-Wilcox Mfg. Co.
Sheldon & Company, E. H.
Wallace & Company, J. D.

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Park, Winton & True Co.
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Wilson Corp., Jas. G.

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Vogel Co., Joseph A.

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Truscon Steel Company
Universal Window Company
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Williams Pivot Sash Company

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Stewart Iron Works Co., The

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Williams Pivot Sash Company

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Burlington Venetian Blind Co.
Columbia Mills, Inc.
Draper Shade Co., Luther O.
Du Pont de Nemours & Co., E. I.
Flanagan Company, A.
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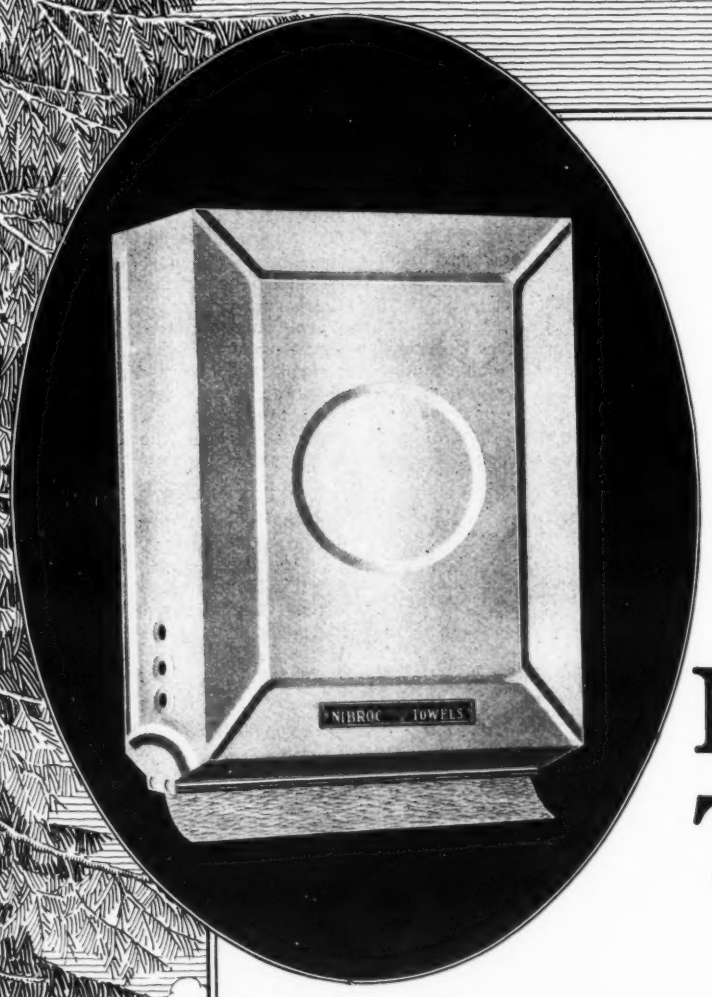
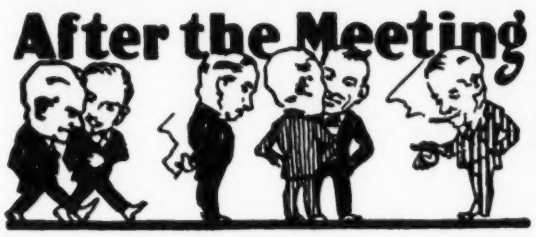


Safeguard
and
Economize
with

NIBROC TOWELS

ONLY with the strict observance of sanitary conditions in your school washrooms and classrooms can good student health be maintained. The installation of NIBROC Towels in your schools will protect the health standards of your community. ¶Unlike a cloth towel that is used repeatedly, NIBROCS are served fresh and clean, *used once* and quickly disposed of. NIBROCS excel in strength, purity, and absorption. They are emollient and free from lint. Economical too—a single 10″ x 15″ sheet will dry the wettest pair of hands *thoroughly*. No need of doubling NIBROCS to prevent disintegration. ¶You have a choice of *golden brown* or *pure white* NIBROCS, of equal quality. Send for generous free supply of NIBROCS today, at our expense. Compare and test them with other makes. NIBROCS will convince you on merit alone.

BROWN Company
FOUNDED 1852
Portland, Maine



SCHOOLDAYS

The following news item comes from Detroit, Mich.: "Disposition of a quart of aged bourbon whiskey—a full quart—is causing Herman J. Browe, principal of the Higgins school, considerable worry.

"The quart, aged ten summers when it was placed in the corner stone of the Higgins school back in 1891, will be brought to light again when the building is torn down to make way for a new structure. Meanwhile, old-timers who remember when the quart was sealed in the corner stone, have besieged Browe with requests for it.

"Today Browe decided to put the matter up to Frank Cody, superintendent of schools. After apprising Cody of the facts in a letter, Browe had an afterthought. The postscript read:

"I have had a very bad cold for a week."

Teacher Explained

Tommy's first school report, which was promising, read, "Trying."

The second term's report raised his parents' hopes by stating, "Still trying."

The next report, however, dashed all hopes to the ground. It read, "Still very trying."

The Professor Was Right

The late Professor Lounsbury, of Yale, was a foe of the purist and pedant. On his summer vacation in the Adirondacks one year the professor gazed across the lake one gray and sultry afternoon and remarked: "It looks like rain."

A pedant was sitting in a rocking chair near by. "What looks like rain, professor?" he chuckled. "I've got you there! What looks like rain?"

Professor Lounsbury turned a cold eye upon the critic and answered: "Water."—Youths' Companion.

In Chicago

The other day a young woman teacher took eight of her pupils through the Field Museum of Natural History. "Well, my boy, where did you go with your teacher this afternoon?" asked the mother of one of them on his return. With joyous promptness he answered: "She took us to a dead circus."

Barber (by force of habit): "Your hair is geting rather thin on top, sir."

School Boy: "I don't wonder at it—the homework we've had lately!"—London Opinion.

NEWS OF THE SCHOOL TRADE

Crane Company Celebrates Anniversary. The Crane Company, of Chicago, on July 4, celebrated the 75th anniversary of the establishment of the firm. The Chicago celebration, which began on June 29 and closed on July 4, was carried out with the participation of nearly 10,000 employees and approximately 1,000 veteran employees, and officials of the company and their families.

The story of the beginnings of the Crane Company is one of the romances of American business. On July 4, 1855, Mr. R. T. Crane, founder of the company, went into business in a small brass and bell foundry in a corner of a lumber yard. The growth of the business he founded has resulted in a world-wide organization, manufacturing and distributing plumbing and heating materials, valves, and fittings for America and foreign countries.

ANNIVERSARY MEDAL OF THE CRANE COMPANY

How great an influence the employees have had on the success of the company can be seen by the fact that the 14 directors average 32 years each in the service of the company; the 20 officials average 32 years of service; the 36 shop-department managers average 20 years; the superintendents and assistant superintendents average 28 years; the office department managers average 27 years; and the foremen average 27 years. One out of four of the employees is a stockholder in the company, and one in four has been with the company from 10 to 59 years.

The plant has grown from a tiny building erected largely by Mr. Crane's own hands to the present enormous factory comprising 600 business buildings and employing more than 20,000 men. The factories are located in 9 cities of the United States, Canada, and England, covering a land area of 375 acres and a floor area of 147 acres. The company maintains branches and sales offices in the United States and 9 foreign countries.

It was characteristic that the business begun with extreme simplicity evolved slowly at first, and later with increasing rapidity, and that its success was based not only on the ability of the founder, but on his clear-sightedness in gathering about him other men of special talent, thus building up an organization of loyal and able assistants.

Representatives Announced. The Steel Furniture Company, Grand Rapids, Michigan, has announced the appointment of George J. Anderson, and Frank J. O'Hara as special representatives for Illinois and Wisconsin, and office and display room opened at 1411 So. Michigan Avenue, Chicago, Ill.

A Grandstand Catalog. The Wayne Iron Works of Wayne, Pa., have just issued a complete, illustrated catalog of the Type B Wayne Grandstand. Except for wood seating and walking surfaces, this grandstand is entirely built of steel and is of the completely portable type. Its erection requires no foundations, no skilled labor, no tools, bolts, pins, or screws. The sections fold flat for conveniences in handling, transportation, and loading. A stand for 300 persons can be erected in three hours time, and larger stands can be put up in proportional periods of time. The stands are used for overflow crowds by colleges, high schools, and the public playground authorities. They have been found especially valuable where fields are to be used for other purposes than football, baseball, and field games, and where the area of the playgrounds occupied by the grandstands must be used for other purposes between seasons. The new catalog, which will be sent on request, contains diagrams and tables of capacity to assist architects and school authorities in laying out play and athletic fields.

RECENT BUSINESS CHANGES

Gregg Publishing Company Moves. Announcement has been made that the executive offices of the Gregg Publishing Company have been moved from 20 West 47th Street, New York City, to 270 Madison Avenue at 39th Street. The new offices have been greatly enlarged.

Sturtevant Removes Office. The B. F. Sturtevant Company, of Hyde Park, Boston, Mass., manufacturers of blowers, heaters, and ventilators, has announced the removal of its Minneapolis branch office from 1024 Metropolitan Life Building to 874-875 Northwestern Bank Building. Mr. P. A. Dwyer remains in charge of the office.

American Laundry Machinery Company Acquires General Laundry Machinery Corporation. The American Laundry Machinery Company, Cincinnati, Ohio, has announced the acquisition of the business of the General Laundry Machinery Corporation, formerly conducted under the name of the Tolhurst Machine Works.

In acquiring the General Laundry Machinery Company's products, the firm has obtained control of a general line of washers and tumblers and calendar flat-work ironers, which will strengthen its position as the leading manufacturer of laundry machinery. The firm will continue the manufacture of certain products of the general line at its Chicago factory.

NEW PRODUCTS

Finnell Combination Floor-Scrubbing and Polishing Machine. For years school and college officials have admitted the superior results of power scrubbing over the hand method of cleaning floors. However, the demand has been growing for a machine which, with a single operator, can scrub the floor and absorb the dirty emulsion in one operation, and do it as quickly, or quicker, than a man can mop.

THE NEW FINNELL SCRUBBING AND POLISHING MACHINE

The Finnell System, Inc., of Elkhart, Ind., as a result of many experiments, has manufactured an electric floor-scrubbing and polishing machine which is capable of performing these operations.

The new combination machine not only scrubs the floor clean and picks up the dirty emulsion simultaneously, but it covers a floor area in one half the time that a man can mop it. The device will make floor cleaning by mopping a prohibitive cost and will make it possible for all schools of any average size to install this modern system for cleaning schoolroom floors. The machine polishes waxed floors as efficiently as it scrubs.

PERSONAL NEWS

Mr. E. H. Hillyard Killed. Mr. E. H. Hillyard, representative of the Midland Chemical Laboratories, of Dubuque, Iowa, was killed on May 7, at La Porte City, Ind., as the result of an automobile accident during a heavy rain storm. Mr. Hillyard who was 68 years of age, was for many years sales representative for the Midland Laboratories. He specialized in institutional work and was well known among schools and hospitals in Illinois and Iowa.

Mr. Harter Dies. Announcement has been made of the death of Mr. M. L. Harter, founder and for many years president of the Harter School Supply Company and of the Harter Publishing Company. Mr. Harter was a long-time resident of Cleveland, was one of the pioneers in the school supply trade in Ohio, and was widely known in Ohio and Indiana.

Death of Mr. Gray. The Johnson Publishing Company, of Richmond, Va., has suffered the loss of the president of the firm, Mr. Andrew Jackson Gray, Jr., whose death occurred on Wednesday, June 18. Mr. Gray had completed 42 years of service with the Johnson Company.

The early mutual fire companies supplied their policyholders with metal fire-marks to put up on their houses.

Big Business Buys Mutual Protection

IT is a problem to many buyers of insurance to know what kind of insurance to buy.

A convincing answer is the example of outstanding industrial corporations of the country who have been *mutual* insurance policyholders for many years.

It is significant that these seasoned buyers of insurance turn to mutual companies for protection and for the considerable saving in cost they offer to any policyholder — corporation or individual.

The savings which mutual fire insurance companies are able to make for their policyholders come from economy and conservatism in management — from intensive and intelligent fire prevention effort.

These savings, under the mutual plan, are returned to policyholders. There are no stockholders in a mutual corporation.

Mutual fire insurance offers property owners a sound, stable and unfailing protection for their investment — at the lowest cost.

Any property owner will find interest and value in a booklet on the aims and accomplishments of mutual fire companies. It will be sent on request. There will be no personal or mail follow-up. Address Mutual Fire Insurance, Room 2202-C, 180 N. Michigan Avenue, Chicago, Illinois.

An Unparalleled Record

75 leading, legal reserve companies under State supervision constitute the Federation of Mutual Fire Insurance Companies. The oldest Federation company was founded in 1752. Five others are more than 100 years old.

Of the remaining companies—

9 are between 75 and 100 years old
10 are between 50 and 75 years old
30 are between 25 and 50 years old
20 are between 10 and 25 years old

The Federation companies are protecting property to the extent of six billion dollars — have assets in excess of ninety million dollars — have returned to policyholders savings of more than one hundred and thirty millions of dollars.

Mutual Fire Insurance

FEDERATION OF MUTUAL FIRE INSURANCE COMPANIES

"We've Stopped Scrubbing Floors —and Cut Our Cleaning Costs 66⅔%"

Car-Na-Var gives new Life, natural Color to Cork and Linoleum Floors

"THIS 13-story office building," reports W. F. SHANK, *Building Superintendent of the* SCHAFF BUILDING, PHILADELPHIA, "has adopted Car-Na-Var for preserving and beautifying its floors and reducing floor maintenance cost.

"Formerly our floors were simply scrubbed with soap and water. While this cleaned them thoroughly, it left both cork and linoleum floors dull and lustreless. Three months ago we treated our cork floors with 3 coats of Car-Na-Var, thoroughly polishing them with a polishing machine. They have maintained a beautiful finish for 3 months with only a nightly dry mopping. The complete cost of the treatment for labor and material was 2¼¢ per sq. ft.—very satisfactory considering the previous condition of the floors.

"The linoleum floors required only one coat of Car-Na-Var, making the total cost for the treatment less than ½ cent. The linoleum also now requires only dry mopping.

Worn and discolored linoleum and cork floors in Schaff Building, Philadelphia, were quickly put in good condition by thoroughly cleaning with Clean-O-Shine and machine polishing with Car-Na-Var. Architect—Benjamin Marshall, Chicago.

"Scrubbing and mopping were costing 3 cents per sq. ft. every 3 months. The total cost of originally applying Car-Na-Var and maintaining with ½ hour dry mopping each night is less than 1 cent per sq. ft. for the same period—saving us 2 cents per sq. ft. in maintenance and giving us much more beautiful floors. This saving was 66⅔% over the scrubbing method.

"About 400 sq. ft. of rubber tile flooring was in such terrible condition that we were about to replace it. Treating with De-Ter-Go and Rubber-Var has worked wonders on this area."

Car-Na-Var and Rubber-Var, scientific combinations of varnish gum and waxes, differ only in the thinners which liquefy them. Car-Na-Var is for treating wood, linoleum, cement, cork, terrazzo, etc., and is supplied in "Natural" and popular colors. Rubber-Var is for treating rubber, soft composition and light colored terrazzo floors.

GOULD MANAGEMENT REPORTS

CAR-NA-VAR
TRADE MARK REG. U.S. PAT. OFF.
THE PERFECT FLOOR TREATMENT

On floors of Rubber, use RUBBER-VAR *works like Car-Na-Var.*

CONTINENTAL CHEMICAL CORPORATION
WATSEKA 280 Scott Street ILLINOIS
Service Branches and Warehouse Stock in Principal Cities

Make this FREE Test!

After all what interests YOU most is what Car-Na-Var or Rubber-Var will do for YOUR floors. Hence our FREE Test Offer. Mail coupon opposite for full details. No obligation.

Continental Chemical Corp., 280 Scott St., Watseka, Ill.
Without obligation send me full details about Car-Na-Var and your free test offer.

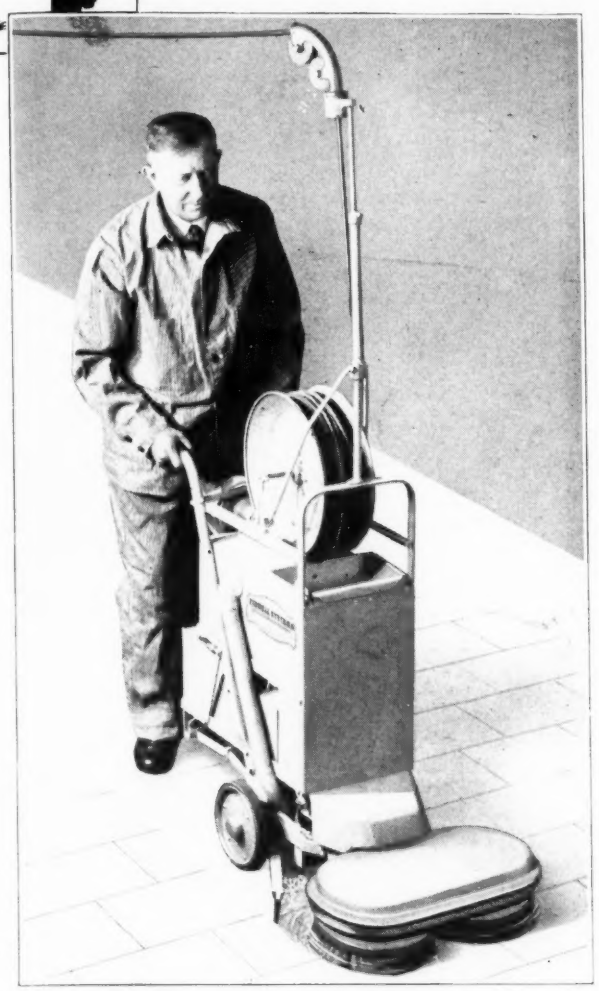
Name.....

Address.....

.....

By..... Our Floors Are.....

Why be satisfied with a partly clean floor at double what a clean floor costs?



Even the cost of Mopping is CUT in HALF by this Amazing Combination

Mopping never was efficient. Now it is not even cheap. The new FINNELL combination scrubber and water absorber makes mopping the most costly way of maintaining floors. Mopping does not do a thorough job, therefore means a loss in prestige and public esteem. It is costly because it takes twice as long to mop a floor partly clean as it takes this FINNELL to scrub a floor thoroughly clean.

High speed, twin disc scrubbers on this new FINNELL scour loose every particle of grime and grit. Immediately, the vacuum picks up the water, in which the dirt is held in suspension. There is no time for the dirt even to settle on the floor before it is drawn into the tank with a powerful suction. The floor is clean and dry in a few seconds after the machine has passed over it. No dirty mop splash on the baseboards. No dirty streak at the bottom of the doors.

In the average building this FINNELL will pay for itself in less than a year. After that it will continue to save its price many times —clear profit.

Let us estimate what it will do on your floors. Send us the essential data, using the space below, and we shall be able to tell you conservatively what you can save by installing the FINNELL. Fill out and mail today.

FINNELL SYSTEM, INC.
808 East Street, Elkhart, Indiana, and Ottawa, Canada.

Fill out and mail to us the questionnaire below and we shall be able to tell you how much you can save over the cheapest method of cleaning by hand.

ELECTRIC FLOOR MACHINE

IT WAXES - IT POLISHES - IT FINISHES - IT SCRUBS

FLOOR SURVEY OF CORRIDORS AND OTHER OPEN FLOOR SPACE

Date.....

State..... City..... Street.....

Type of building.....

Is floor mopped?.....or scrubbed?.....or both?.....

How many times monthly is it mopped?..... scrubbed?.....

No. of floors above 1st floor..... Area of each.....sq. ft.

Area of first floor.....sq. ft. Total area..... sq. ft.

No. of men used.....Hours per day..... Total hours.....Hour rate.....

No. of women used.....Hours per day..... Total hours.....Hour rate.....

Kinds of floors: Wood ☐ Marble ☐ Terrazzo ☐ Rubber ☐ Mastic ☐ Linoleum ☐

Present condition: Clean ☐ Coated ☐ Dirty ☐

What condition is required?.....Kind of water: Soft ☐ Hard ☐ Hot ☐ Cold ☐

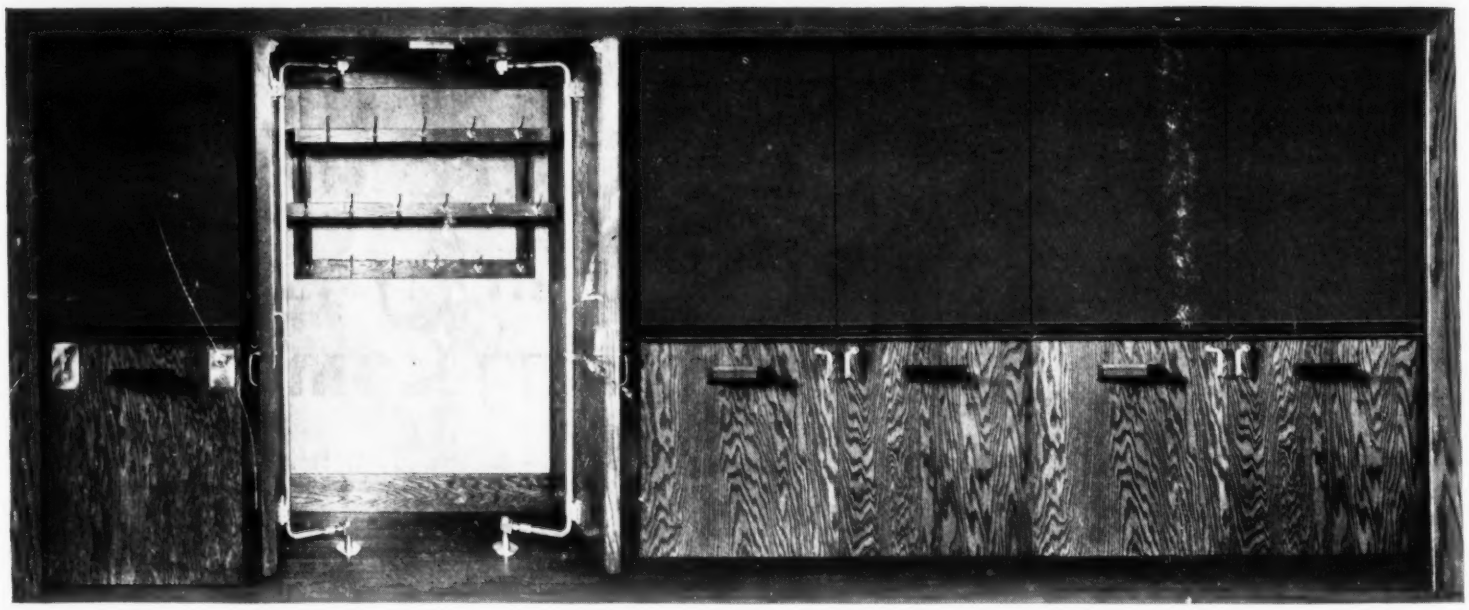
Material used: Abrasive ☐ Soap Powder ☐ Softener ☐

Machinery used.....Scrubber.....Mopper.....Mop Truck.....
(give name and size of brush ring)

State type of current and voltage used.....

Furnish sketch of floor plan showing location of electric sockets, elevators and slop sinks.

Signature.....



AUSTRAL *MULTI UNIT* SCHOOL WARDROBE

Keeping Pace With the Modern School

In many respects the excellence of modern school design has not been carried on through the classrooms.

The newest, most up-to-date equipment for modern interior construction is the AUSTRAL SCHOOL WARDROBE.

AUSTRAL engineers found their craftsmanship and experience in perfecting the AUSTRAL WINDOW of greatest value in developing their new product.

Now comes the WARDROBE. meeting a long needed requirement. distinctly superior and quality equipment, unit built.

It conserves space
Is Attractive
Is thoroughly ventilated
Is built like a battleship
Adjusted like a watch

These are only a few of its virtues.

A new catalogue explains the AUSTRAL WARDROBE thoroughly.

IT IS MODERN - ORIGINAL
CONVENIENT - PERMANENT

101 PARK AVE **AUSTRAL WINDOW CO.** NEW YORK CITY